

## Chapter 02

### Property Acquisition and Cost Recovery

#### True / False Questions

1. Like financial accounting, most business property must be capitalized for tax purposes.

True   False

2. Tax cost recovery methods include depreciation, amortization, and depletion.

True   False

3. If a business mistakenly claims too little depreciation, the business must only reduce the asset's basis by the depreciation actually taken rather than the amount of the allowable depreciation.

True   False

4. An asset's capitalized cost basis includes only the actual purchase price; whereas the other expenses associated with the asset are immediately expensed.

True   False

5. The basis for a personal use asset converted to business use is the lesser of the asset's cost basis or fair market value on the date of the transfer or conversion.

True   False

6. Depreciation is currently computed under the Modified Accelerated Cost Recovery System (MACRS).

True False

7. The 200 percent or double declining balance method is allowable for five and seven year property.

True False

8. Taxpayers may use historical data to determine the recovery period for tax depreciation.

True False

9. Taxpayers use the half-year convention for all assets.

True False

10. If a taxpayer places only one asset (a building) in service during the fourth quarter of the year, the mid-quarter convention must be used.

True False

11. The MACRS depreciation tables automatically switch to the straight-line method when it exceeds the declining balance method.

True False

12. If tangible personal property is depreciated using the half-year convention and is disposed of during the first quarter of a subsequent year, the taxpayer must use the mid-quarter convention for the year of disposition.

True False

13. If a machine (seven-year property) being depreciated using the half-year convention is disposed of during the seventh year, a taxpayer must multiply the appropriate depreciation percentage from the MACRS table percentage by 50 percent to calculate the depreciation expense properly.

True False

14. Real property is always depreciated using the straight-line method.

True False

15. The mid-month convention applies to real property in the year of acquisition and disposition.

True False

16. All taxpayers may use the §179 immediate expensing election on certain property.

True False

17. The §179 immediate expensing election phases out based upon a taxpayer's taxable income.

True False

18. The §179 immediate expensing election phases out based upon the amount of tangible personal property a taxpayer places in service during the year.

True False

19. Property expensed under the §179 immediate expensing election is not included in the 40 percent test to determine whether the mid-quarter convention must be used.

True False

20. In general, a taxpayer should select longer-lived property for the §179 immediate expensing election.

True False

21. Occasionally bonus depreciation is used as a stimulus tool by tax policy makers.

True False

22. Business assets that tend to be used for both business and personal purposes are referred to as listed property.

True False

23. If the business use percentage for listed property falls below 50 percent, the only adjustment is all future depreciation must be calculated under the straight-line method.

True False

24. Significant limits are placed on the depreciation of luxury automobiles.

True False

25. The alternative depreciation system requires both a slower method of recovery and longer recovery periods.

True False

26. The method for tax amortization is always the straight-line method.

True False

27. All assets subject to amortization have the same recovery period.

True False

28. Goodwill and customer lists are examples of §197 amortizable assets.

True False

29. Taxpayers may always expense a portion of start-up costs and organizational expenditures.

True False

30. Businesses may immediately expense research and experimentation expenditures or they may elect to capitalize these costs and amortize them using the straight-line method over a period of not less than 60 months.

True False

31. The manner in which a business amortizes a patent or copyright is the same whether the business directly purchases the patent or copyright or whether it self-creates the intangible.

True False

32. Depletion is the method taxpayers use to recover their capital investment in natural resources.

True False

33. In general, major integrated oil and gas producers may take the greater of cost or percentage depletion.

True False

34. Cost depletion is available to all natural resource producers.

True False

35. Businesses deduct percentage depletion when they sell the natural resource and they deduct cost depletion in the year they produce or extract the natural resource.

True False

### Multiple Choice Questions

36. Tax cost recovery methods do not include:

- A. Amortization
- B. Capitalization
- C. Depletion
- D. Depreciation
- E. All of these are tax cost recovery methods

37. Which of the following is not depreciated?

- A. Automobile
- B. Building
- C. Patent
- D. Machinery
- E. All of these are depreciated

38. Which of the following is not usually included in an asset's tax basis?

- A. Purchase price
- B. Sales tax
- C. Shipping
- D. Installation costs
- E. All of these are included in an asset's tax basis

39. Which of the following would be considered an improvement rather than a routine maintenance?

- A. Oil change
- B. Engine overhaul
- C. Wiper blade replacement
- D. Air filter change

40. Tax depreciation is currently calculated under what system?

- A. Sum of the years digits
- B. Accelerated cost recovery system
- C. Modified accelerated cost recovery system
- D. Straight line system
- E. None of these

41. Which is not an allowable method under MACRS?

- A. 150 percent declining balance
- B. 200 percent declining balance
- C. Straight line
- D. Sum of the years digits
- E. All of these are allowable methods under MACRS

42. Which of the allowable methods allows the most accelerated depreciation?

- A. 150 percent declining balance
- B. 200 percent declining balance
- C. Straight line
- D. Sum of the years digits
- E. None of these allow accelerated depreciation

43. How is the recovery period of an asset determined?

- A. Estimated useful life
- B. Treasury regulation
- C. Revenue Procedure 87 - 56
- D. Revenue Ruling 87 - 56
- E. None of these

44. Which of the following depreciation conventions are not used under MACRS?

- A. Full-month
- B. Half-year
- C. Mid-month
- D. Mid-quarter
- E. All of these are used under MACRS

45. Which depreciation convention is the general rule for tangible personal property?

- A. Full-month
- B. Half-year
- C. Mid-month
- D. Mid-quarter
- E. None of these are conventions for tangible personal property

46. The MACRS recovery period for automobiles and computers is:

- A. 3 years
- B. 5 years
- C. 7 years
- D. 10 years
- E. None of these



47. Lax, LLC purchased only one asset during the current year. It placed in service computer equipment (5-year property) on August 26 with a basis of \$20,000. Calculate the maximum depreciation expense for the current year (ignoring §179 and bonus depreciation):

- A. \$2,000
- B. \$2,858
- C. \$3,000
- D. \$4,000
- E. None of these

48. Sairra, LLC purchased only one asset during the current year. It placed in service furniture (7-year property) on April 16 with a basis of \$25,000. Calculate the maximum depreciation expense for the current year, rounding to a whole number (ignoring §179 and bonus depreciation):

- A. \$1,786
- B. \$3,573
- C. \$4,463
- D. \$5,000
- E. None of these

49. Beth's business purchased only one asset during the current year. It placed in service machinery (7-year property) on December 1 with a basis of \$50,000. Calculate the maximum depreciation expense (ignoring §179 and bonus depreciation):

- A. \$1,785
- B. \$2,500
- C. \$7,145
- D. \$10,000
- E. None of these

50. Deirdre's business purchased two assets during the current year. It placed in service computer equipment (5-year property) on January 20 with a basis of \$15,000 and machinery (7-year property) on October 1 with a basis of \$15,000. Calculate the maximum depreciation expense, rounded to a whole number (ignoring §179 and bonus depreciation):
- A. \$1,286
  - B. \$5,144
  - C. \$5,786
  - D. \$6,000
  - E. None of these
51. Suvi, Inc. purchased two assets during the current year. It placed in service computer equipment (5-year property) on August 10 with a basis of \$20,000 and machinery (7-year property) on November 18 with a basis of \$10,000. Calculate the maximum depreciation expense, rounded to a whole number (ignoring §179 and bonus depreciation):
- A. \$857
  - B. \$3,357
  - C. \$5,429
  - D. \$6,000
  - E. None of these
52. Wheeler LLC purchased two assets during the current year. It placed in service computer equipment (5-year property) on November 16 with a basis of \$15,000 and furniture (7-year property) on April 20 with a basis of \$11,000. Calculate the maximum depreciation expense, rounding to a whole number (ignoring §179 and bonus depreciation):
- A. \$1,285
  - B. \$2,714
  - C. \$4,572
  - D. \$5,200
  - E. None of these

53. Tasha LLC purchased furniture (7-year property) on April 20 with a basis of \$20,000 and used the mid-quarter convention. During the current year, which is the fourth year Tasha LLC owned the property, the property was disposed of on December 15. Calculate the maximum depreciation expense, rounding to a whole number:
- A. \$898
  - B. \$2,095
  - C. \$2,461
  - D. \$2,394
  - E. None of these
54. Anne LLC purchased computer equipment (5-year property) on August 29 with a basis of \$30,000 and used the half-year convention. During the current year, which is the fourth year Anne LLC owned the property, the property was disposed of on January 15. Calculate the maximum depreciation expense:
- A. \$432
  - B. \$1,728
  - C. \$1,874
  - D. \$3,456
  - E. None of these
55. Poplock LLC purchased a warehouse and land during the current year for \$350,000. The purchase price was allocated as follows: \$275,000 to the building and \$75,000 to the land. The property was placed in service on August 12. Calculate Poplock's maximum depreciation for this first year, rounded to the nearest whole number:
- A. \$2,648
  - B. \$3,371
  - C. \$3,751
  - D. \$4,774
  - E. None of these

56. Tom Tom LLC purchased a rental house and land during the current year for \$150,000. The purchase price was allocated as follows: \$100,000 to the building and \$50,000 to the land. The property was placed in service on May 22. Calculate Tom Tom's maximum depreciation for this first year:
- A. \$1,605
  - B. \$2,273
  - C. \$2,408
  - D. \$3,410
  - E. None of these
57. Simmons LLC purchased an office building and land several years ago for \$250,000. The purchase price was allocated as follows: \$200,000 to the building and \$50,000 to the land. The property was placed in service on October 2. If the property is disposed of on February 27 during the 10<sup>th</sup> year, calculate Simmons' maximum depreciation in the 10<sup>th</sup> year:
- A. \$641
  - B. \$909
  - C. \$5,128
  - D. \$7,346
  - E. None of these
58. Lenter LLC placed in service on April 29, 2012 machinery and equipment (7-year property) with a basis of \$500,000. Assume that Lenter has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing (but ignoring bonus depreciation):
- A. \$71,450.
  - B. \$139,000.
  - C. \$190,587.
  - D. \$210,450.
  - E. None of these.

59. Littman LLC placed in service on July 29, 2012 machinery and equipment (7-year property) with a basis of \$500,000. Littman's income for the current year before expensing was \$100,000. Calculate the maximum depreciation expense including §179 expensing (but ignoring bonus depreciation):
- A. \$71,450.
  - B. \$190,587.
  - C. \$157,160.
  - D. \$210,450
  - E. None of these.
60. Crouch LLC placed in service on May 19, 2012 machinery and equipment (7-year property) with a basis of \$650,000. Assume that Crouch has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing (but ignoring bonus depreciation):
- A. \$92,885.
  - B. \$134,883.
  - C. \$212,022.
  - D. \$231,885.
  - E. None of these.
61. Clay LLC placed in service machinery and equipment (7-year property) with a basis of \$600,000 on June 6, 2012. Assume that Clay has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing (ignoring any possible bonus depreciation), rounded to a whole number:
- A. \$170,593
  - B. \$204,877
  - C. \$224,740
  - D. \$285,940
  - E. None of these

62. Bonnie Jo purchased a used computer (5-year property) for use in her sole proprietorship. The basis of the computer was \$2,400. Bonnie Jo used the computer in her business 60 percent of the time and used it for personal purposes the rest of the time during the first year. Calculate Bonnie Jo's depreciation expense during the first year assuming the sole proprietorship had a loss during the year (Bonnie did not place the property in service in the last quarter):
- A. \$240
  - B. \$288
  - C. \$480
  - D. \$2,400
  - E. None of these
63. Billie Bob purchased a used computer (5-year property) for use in his sole proprietorship in the prior year. The basis of the computer was \$2,400. Billie Bob used the computer in his business 60 percent of the time during the first year. During the second year, Billie Bob used the computer 40 percent for business use. Calculate Billie Bob's depreciation expense during the second year assuming the sole proprietorship had a loss during the year (Billie Bob did not place the asset in service in the last quarter):
- A. \$0
  - B. \$48
  - C. \$192
  - D. \$336
  - E. None of these
64. Potomac LLC purchased an automobile for \$30,000 on August 5<sup>th</sup> of 2012. What is Potomac's depreciation expense for 2012 (ignore any possible bonus depreciation)?
- A. \$3,060
  - B. \$4,287
  - C. \$6,000
  - D. \$30,000
  - E. None of these

65. Arlington LLC purchased an automobile for \$40,000 on July 5<sup>th</sup> of 2012. What is Arlington's depreciation expense for 2012 if its business use percentage is 75 percent (ignore any possible bonus depreciation)?

- A. \$2,295
- B. \$3,060
- C. \$6,000
- D. \$8,000
- E. None of these

66. Assume that Bethany acquires a competitor's assets on March 31<sup>st</sup>. The purchase price was \$150,000. Of that amount, \$125,000 is allocated to tangible assets and \$25,000 is allocated to goodwill (a §197 intangible asset). What is Bethany's amortization expense for the current year, rounded to the nearest whole number?

- A. \$0
- B. \$1,250
- C. \$1,319
- D. \$1,389
- E. None of these

67. Assume that Brittany acquires a competitor's assets on September 30<sup>th</sup> of the prior year. The purchase price was \$350,000. Of that amount, \$300,000 is allocated to tangible assets and \$50,000 is allocated equally to two §197 intangible assets (goodwill and a 1-year non-compete agreement). Given, that the non-compete agreement expires on September 30<sup>th</sup> of year 2, what is Brittany's amortization expense for the second year, rounded to the nearest whole number?

- A. \$0
- B. \$1,667
- C. \$2,917
- D. \$3,333
- E. None of these

68. Jasmine started a new business in the current year. She incurred \$10,000 of start-up costs. How much of the start-up costs can be immediately expensed for the year?

- A. \$0
- B. \$2,500
- C. \$5,000
- D. \$10,000
- E. None of these

69. Racine started a new business in the current year. She incurred \$52,000 of start-up costs. If her business started on November 23<sup>rd</sup> of the current year, what is the total expense she may deduct with respect to the start-up costs for her initial year, rounded to the nearest whole number?

- A. \$2,555.
- B. \$3,544.
- C. \$5,522.
- D. \$52,000.
- E. None of these.

70. Daschle LLC completed some research and development during June of the current year. The related costs were \$60,000. If Daschle wants to capitalize and amortize the costs as quickly as possible, what is the total amortization expense Daschle may deduct during the current year?

- A. \$0
- B. \$6,500
- C. \$7,000
- D. \$12,000
- E. None of these



71. Jorge purchased a copyright for use in his business in the current year. The purchase occurred on July 15<sup>th</sup> and the purchase price was \$75,000. If the patent has a remaining life of 75 months, what is the total amortization expense Jorge may deduct during the current year?
- A. \$0
  - B. \$5,500
  - C. \$6,000
  - D. \$12,000
  - E. None of these
72. Geithner LLC patented a process it developed in the current year. The patent is expected to create benefits for Geithner over a 10 year period. The patent was issued on April 15<sup>th</sup> and the legal costs associated with the patent were \$43,000. In addition, Geithner had unamortized research expenditures of \$15,000 related to the process. What is the total amortization expense Geithner may deduct during the current year?
- A. \$2,417
  - B. \$2,559
  - C. \$4,108
  - D. \$4,350
  - E. None of these
73. Santa Fe purchased the rights to extract turquoise on a tract of land over a five-year period. Santa Fe paid \$300,000 for extraction rights. A geologist estimates that Santa Fe will recover 5,000 pounds of turquoise. During the current year, Santa Fe extracted 1,500 pounds of turquoise, which it sold for \$200,000. What is Santa Fe's cost depletion expense for the current year?
- A. \$60,000
  - B. \$90,000
  - C. \$110,000
  - D. \$300,000
  - E. None of these

74. Santa Fe purchased the rights to extract turquoise on a tract of land over a five-year period. Santa Fe paid \$300,000 for extraction rights. A geologist estimated that Santa Fe will recover 5,000 pounds of turquoise. During the past several years, 4,000 pounds were extracted. During the current year, Santa Fe extracted 1,500 pounds of turquoise, which it sold for \$250,000. What is Santa Fe's cost depletion expense for the current year?
- A. \$60,000  
B. \$90,000  
C. \$190,000  
D. \$160,000  
E. None of these
75. Lucky Strike Mine (LLC) purchased a silver deposit for \$1,500,000. It estimated it would extract 500,000 ounces of silver from the deposit. Lucky Strike mined the silver and sold it reporting gross receipts of \$1.8 million, \$2.5 million, and \$2 million for years 1 through 3, respectively. During years 1 - 3, Lucky Strike reported net income (loss) from the silver deposit activity in the amount of (\$100,000), \$400,000, and \$100,000, respectively. In years 1 - 3, Lucky Strike actually extracted 300,000 ounces of silver as follows:

<b>Ounces extracted per year</b>		
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
50,000	150,000	100,000

What is Lucky Strike's depletion expense for year 2 if the applicable percentage depletion for silver is 15 percent?

- A. \$200,000  
B. \$375,000  
C. \$400,000  
D. \$450,000  
E. None of these

## Essay Questions

76. Janey purchased machinery on April 8<sup>th</sup> of the current year. The relevant costs for the year are as follows: machinery for \$10,000, \$800 shipping, \$50 for delivery insurance, \$500 for installation, \$750 for sales tax, \$150 for the annual tune up, and \$200 of property taxes (an annual tax on business property). What is Janey's tax basis for the machinery?
77. Jaussi purchased a computer several years ago for \$2,200 and used it for personal purposes. On November 10<sup>th</sup> of the current year, when the fair market value of the computer was \$800, Jaussi converted it to business use. What is Jaussi's tax basis for the computer?

78. Flax, LLC purchased only one asset during 2012. It placed in service a computer (5-year property) on January 16 with a basis of \$14,000. Calculate the maximum depreciation expense (ignoring §179 and bonus depreciation).

79. Roth, LLC purchased only one asset during the current year. It placed in service computer equipment (5-year property) on November 1<sup>st</sup> with a basis of \$42,500. Calculate the maximum depreciation expense (ignoring §179 and bonus depreciation).

80. Eddie purchased only one asset during the current year. It placed in service furniture (7-year property) on May 1<sup>st</sup> with a basis of \$26,500. Calculate the maximum depreciation expense, rounded to the nearest whole number (ignoring §179 and bonus depreciation).

81. Teddy purchased only one asset during the current year. It placed in service machinery (7-year property) on October 1<sup>st</sup> with a basis of \$76,500. Calculate the maximum depreciation expense, rounded to the nearest whole number (ignoring §179 and bonus depreciation).
82. Amit purchased two assets during the current year. Amit placed in service computer equipment (5-year property) on April 16<sup>th</sup> with a basis of \$5,000 and furniture (7-year property) on September 9<sup>th</sup> with a basis of \$20,000. Calculate the maximum depreciation expense (ignoring §179 and bonus depreciation):

83. Yasmin purchased two assets during the current year. Yasmin placed in service computer equipment (5-year property) on May 26<sup>th</sup> with a basis of \$10,000 and machinery (7-year property) on December 9<sup>th</sup> with a basis of \$10,000. Calculate the maximum depreciation expense (ignoring §179 and bonus depreciation):
84. Bonnie Jo used two assets during the current year. The first was computer equipment with an original basis of \$15,000, currently in the second year of depreciation, and under the half-year convention. This asset was disposed of on October 1<sup>st</sup> of the current year. The second was furniture with an original basis of \$24,000 placed in service during the first quarter, currently in the fourth year of depreciation, and under the mid-quarter convention. What is Bonnie Jo's depreciation expense for the current year, rounded to the nearest whole number?

85. Kristine sold two assets on March 20<sup>th</sup> of the current year. The first was machinery with an original basis of \$51,000, currently in the fourth year of depreciation, and under the half-year convention. The second was furniture with an original basis of \$16,000 placed in service during the fourth quarter, currently in the third year of depreciation, and under the mid-quarter convention. What is Kristine's depreciation expense for the current year, rounded to the nearest whole number?
86. Timothy purchased a new computer for his consulting practice on October 15<sup>th</sup> of the current year. The basis of the computer was \$4,000. During the Thanksgiving holiday, he decided the computer didn't meet his business needs and gave it to his college-aged son in another state. The computer was never used for business purposes again. Timothy had \$50,000 of taxable income before depreciation. What is Timothy's total cost recovery expense with respect to the computer during the current year?

87. During August of the prior year, Julio purchased an apartment building that he used as a rental property. The basis was \$1,400,000. Calculate the maximum depreciation expense during the current year?

88. During April of the current year, Ronen purchased a warehouse that he used for business purposes. The basis was \$1,600,000. Calculate the maximum depreciation expense during the current year?

89. An office building was purchased on December 9<sup>th</sup> several years ago for \$2,500,000. The purchase price was allocated as follows: building \$1,900,000, landscaping \$100,000, and land \$500,000. During the current year, the 10<sup>th</sup> year, the building was sold on March 10<sup>th</sup>. Calculate the maximum depreciation expense for the real property during the current year, rounded to the nearest whole number?



90. Olney LLC placed in service on July 19, 2012 machinery and equipment (7-year property) with a basis of \$550,000. Assume that Olney has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing, rounded to the nearest whole number (but ignoring bonus depreciation):
91. Columbia LLC placed in service on October 9, 2012 machinery and equipment (7-year property) with a basis of \$625,000. Assume that Columbia has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing (but ignoring bonus depreciation) for the year, rounded to the nearest whole number:

92. In 2012, Northern LLC placed in service on September 6<sup>th</sup> machinery and equipment (7-year property) with a basis of \$580,000. Assume that Northern has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing (ignore any potential bonus depreciation), rounded to the nearest whole number.
93. Assume that Reid has 2012 taxable income of \$125,000 before any §179 expense and acquired the following assets: he placed in service computer equipment (5-year property) on August 6<sup>th</sup> with a basis of \$100,000 and machinery (7-year property) on November 9<sup>th</sup> with a basis of \$100,000. Calculate the maximum depreciation expense including §179 expensing (but not bonus depreciation).

94. Phyllis purchased \$8,000 of specialized audio equipment that she uses in her business regularly. Occasionally, she uses the equipment for personal use. During the first year, Phyllis used the equipment for business use 70 percent of the time; however, during the current (second) year the business use fell to 40 percent. Assume that the equipment is seven-year MACRS property and is under the half-year convention. Assume the ADS recovery period is 10 years. What is the depreciation allowance for the current year, rounded to the nearest whole number?
95. Alexandra purchased a \$35,000 automobile during 2012. The business use was 70 percent. What is the allowable depreciation for the current year (ignore any possible bonus depreciation)?

96. Boxer LLC has acquired various types of assets recently. Below is a list of assets acquired during 2011 and 2012:

<u>Asset</u>	<u>Cost Basis</u>	<u>Convention</u>	<u>Date Placed in Service</u>
Machinery	25,000	Half year	January 24, 2011
Warehouse	800,000	Mid month	August 1, 2011
Furniture	100,000		October 5, 2012
Computer equipment	65,000		September 10, 2012
Office equipment	34,000		September 28, 2012
Automobile	35,000		July 15, 2012
Office building	800,000		September 24, 2012

Boxer did not elect §179 expense or potential bonus depreciation in 2011, but would like to elect §179 expense for 2012 (assume that taxable income is sufficient). Calculate Boxer's maximum depreciation expense for 2012, rounded to the nearest whole number (ignore bonus depreciation for 2012).

97. Assume that Yuri acquires a competitor's assets on May 1<sup>st</sup>. The purchase price was \$500,000. Of the amount, \$325,000 is allocated to tangible assets and \$175,000 is allocated to goodwill (a §197 intangible asset). What is Yuri's amortization expense for the current year, rounded to the nearest whole number?

98. Assume that Cannon LLC acquires a competitor's assets on June 15<sup>th</sup> of a prior year. The purchase price was \$450,000. Of the amount, \$196,200 is allocated to tangible assets and \$253,800 is allocated to three §197 intangible assets: \$153,000 to goodwill, \$50,400 to a customer list with an expected life of 8 years, and \$50,400 to a 3 year non-compete agreement. On May 30<sup>th</sup> of the second year, the customer list is sold for \$10,000. Please round your amortization amounts to the nearest whole number. Round your allocation percentage to the nearest whole percentage (e.g., .1234 as 12%)

- 1) What is Cannon's amortization expense for the second year?
- 2) What is the basis of the intangibles at the end of the second year?

99. Oksana started an LLC on November 2 of the current year. She incurred \$30,000 of start-up costs. How much of the start-up costs can be immediately expensed for the year? How much amortization may Oksana deduct in the first year?

100. Putin Corporation began business on September 23<sup>rd</sup> of the current year. It incurred \$40,000 of start-up costs and \$60,000 of organizational expenditures.

- 1) How much may be immediately expensed for the year?
- 2) How much amortization may be deducted in the first year, rounded to the nearest whole number?

101. Paulsen incurred \$55,000 of research and experimental expenses and began amortizing them over 60 months during June of year 1. During May of year 3, Paulsen received a patent based upon the research being amortized. \$36,000 of legal expenses for the patent was incurred.

- 1) What is the basis of the patent, rounding amortization for each year to the nearest whole number?
- 2) What is the amortization expense with respect to the patent during the year it was issued, rounded to the nearest whole number?

102. Sequoia purchased the rights to cut timber on several tracts of land over a fifteen year period. It paid \$500,000 for cutting rights. A timber engineer estimates that 500,000 board feet of timber will be cut. During the current year, Sequoia cut 45,000 board feet of timber, which it sold for \$900,000. What is Sequoia's cost depletion expense for the current year?

103. PC Mine purchased a platinum deposit for \$3,500,000. It estimated it would extract 17,000 ounces of platinum from the deposit. PC mined the platinum and sold it reporting gross receipts of \$500,000 and \$8 million for years 1 and 2, respectively. During years 1 and 2, PC reported net income (loss) from the platinum deposit activity in the amount of (\$100,000) and \$3,800,000, respectively. In years 1 and 2, PC actually extracted 2,000 and 8,000 ounces of platinum. What is PC's depletion expense for years 1 and 2 if the applicable percentage depletion for platinum is 22 percent, rounded to the nearest whole number?

## Chapter 02 Property Acquisition and Cost Recovery **Answer Key**

### True / False Questions

1. Like financial accounting, most business property must be capitalized for tax purposes.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-01 Explain the concept of basis and adjusted basis and describe the cost recovery methods used under the tax law to recover the cost of personal property; real property; intangible assets; and natural resources.*

*Level of Difficulty: 1 Easy*

2. Tax cost recovery methods include depreciation, amortization, and depletion.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-01 Explain the concept of basis and adjusted basis and describe the cost recovery methods used under the tax law to recover the cost of personal property; real property; intangible assets; and natural resources.*

*Level of Difficulty: 1 Easy*

3. If a business mistakenly claims too little depreciation, the business must only reduce the asset's basis by the depreciation actually taken rather than the amount of the allowable depreciation.

**FALSE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-01 Explain the concept of basis and adjusted basis and describe the cost recovery methods used under the tax law to recover the cost of personal property; real property; intangible assets; and natural resources.*

*Level of Difficulty: 2 Medium*



4. An asset's capitalized cost basis includes only the actual purchase price; whereas the other expenses associated with the asset are immediately expensed.

**FALSE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-01 Explain the concept of basis and adjusted basis and describe the cost recovery methods used under the tax law to recover the cost of personal property; real property; intangible assets; and natural resources.*

*Level of Difficulty: 2 Medium*

5. The basis for a personal use asset converted to business use is the lesser of the asset's cost basis or fair market value on the date of the transfer or conversion.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-01 Explain the concept of basis and adjusted basis and describe the cost recovery methods used under the tax law to recover the cost of personal property; real property; intangible assets; and natural resources.*

*Level of Difficulty: 2 Medium*

6. Depreciation is currently computed under the Modified Accelerated Cost Recovery System (MACRS).

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

7. The 200 percent or double declining balance method is allowable for five and seven year property.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

8. Taxpayers may use historical data to determine the recovery period for tax depreciation.

**FALSE**

Taxpayers use the recovery periods outlined in Revenue Procedure 87 - 56.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

9. Taxpayers use the half-year convention for all assets.

**FALSE**

For personal property, taxpayers must use either the half-year or mid-quarter convention.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

10. If a taxpayer places only one asset (a building) in service during the fourth quarter of the year, the mid-quarter convention must be used.

**FALSE**

All real property is depreciated using the mid-month convention.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

11. The MACRS depreciation tables automatically switch to the straight-line method when it exceeds the declining balance method.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

12. If tangible personal property is depreciated using the half-year convention and is disposed of during the first quarter of a subsequent year, the taxpayer must use the mid-quarter convention for the year of disposition.

**FALSE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

13. If a machine (seven-year property) being depreciated using the half-year convention is disposed of during the seventh year, a taxpayer must multiply the appropriate depreciation percentage from the MACRS table percentage by 50 percent to calculate the depreciation expense properly.

**TRUE**

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

14. Real property is always depreciated using the straight-line method.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

15. The mid-month convention applies to real property in the year of acquisition and disposition.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

16. All taxpayers may use the §179 immediate expensing election on certain property.

**FALSE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 1 Easy*

17. The §179 immediate expensing election phases out based upon a taxpayer's taxable income.

**FALSE**

The §179 phase out is based upon the amount of property placed in service during the year.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 1 Easy*

18. The §179 immediate expensing election phases out based upon the amount of tangible personal property a taxpayer places in service during the year.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 1 Easy*

19. Property expensed under the §179 immediate expensing election is not included in the 40 percent test to determine whether the mid-quarter convention must be used.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 3 Hard*

20. In general, a taxpayer should select longer-lived property for the §179 immediate expensing election.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 1 Easy*

21. Occasionally bonus depreciation is used as a stimulus tool by tax policy makers.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 1 Easy*

22. Business assets that tend to be used for both business and personal purposes are referred to as listed property.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 2 Medium*

23. If the business use percentage for listed property falls below 50 percent, the only adjustment is all future depreciation must be calculated under the straight-line method.

**FALSE**

The property is subject to depreciation recapture for any excess depreciation over the straight line method using the ADS recovery period over the entire time.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 2 Medium*

24. Significant limits are placed on the depreciation of luxury automobiles.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 1 Easy*

25. The alternative depreciation system requires both a slower method of recovery and longer recovery periods.

**FALSE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Apply*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 2 Medium*

26. The method for tax amortization is always the straight-line method.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets, and calculate amortization expense.*

*Level of Difficulty: 1 Easy*

27. All assets subject to amortization have the same recovery period.

**FALSE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets, and calculate amortization expense.*

*Level of Difficulty: 1 Easy*

28. Goodwill and customer lists are examples of §197 amortizable assets.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets, and calculate amortization expense.*

*Level of Difficulty: 2 Medium*

29. Taxpayers may always expense a portion of start-up costs and organizational expenditures.

**FALSE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets, and calculate amortization expense.*



30. Businesses may immediately expense research and experimentation expenditures or they may elect to capitalize these costs and amortize them using the straight-line method over a period of not less than 60 months.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets; and calculate amortization expense.*

*Level of Difficulty: 1 Easy*

31. The manner in which a business amortizes a patent or copyright is the same whether the business directly purchases the patent or copyright or whether it self-creates the intangible.

**FALSE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets; and calculate amortization expense.*

*Level of Difficulty: 2 Medium*

32. Depletion is the method taxpayers use to recover their capital investment in natural resources.

**TRUE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-05 Explain cost recovery of natural resources and the allowable depletion methods.*

*Level of Difficulty: 1 Easy*

33. In general, major integrated oil and gas producers may take the greater of cost or percentage depletion.

FALSE

Depletion of timber and major integrated oil companies must be calculated using only the cost depletion method (no percentage depletion is available).

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-05 Explain cost recovery of natural resources and the allowable depletion methods.*

*Level of Difficulty: 2 Medium*

34. Cost depletion is available to all natural resource producers.

TRUE

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-05 Explain cost recovery of natural resources and the allowable depletion methods.*

*Level of Difficulty: 2 Medium*

35. Businesses deduct percentage depletion when they sell the natural resource and they deduct cost depletion in the year they produce or extract the natural resource.

TRUE

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-05 Explain cost recovery of natural resources and the allowable depletion methods.*

*Level of Difficulty: 2 Medium*

## Multiple Choice Questions

36. Tax cost recovery methods do not include:

- A. Amortization
- B.** Capitalization
- C. Depletion
- D. Depreciation
- E. All of these are tax cost recovery methods

Amortization, depletion, and depreciation are cost recovery methods as a result of asset capitalization.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-01 Explain the concept of basis and adjusted basis and describe the cost recovery methods used under the tax law to recover the cost of personal property; real property; intangible assets; and natural resources.*

*Level of Difficulty: 1 Easy*

37. Which of the following is not depreciated?

- A. Automobile
- B. Building
- C.** Patent
- D. Machinery
- E. All of these are depreciated

Patents are amortized rather than depreciated.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-01 Explain the concept of basis and adjusted basis and describe the cost recovery methods used under the tax law to recover the cost of personal property; real property; intangible assets; and natural resources.*

*Level of Difficulty: 1 Easy*

38. Which of the following is not usually included in an asset's tax basis?

- A. Purchase price
- B. Sales tax
- C. Shipping
- D. Installation costs
- E.** All of these are included in an asset's tax basis

The purchase price, sales tax, shipping, and installation costs are all included in an assets tax basis.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-01 Explain the concept of basis and adjusted basis and describe the cost recovery methods used under the tax law to recover the cost of personal property; real property; intangible assets; and natural resources.*

*Level of Difficulty: 1 Easy*

39. Which of the following would be considered an improvement rather than a routine maintenance?

- A. Oil change
- B.** Engine overhaul
- C. Wiper blade replacement
- D. Air filter change

The engine overhaul is an improvement because it extends the useful life of the asset while the other items are routine maintenance.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-01 Explain the concept of basis and adjusted basis and describe the cost recovery methods used under the tax law to recover the cost of personal property; real property; intangible assets; and natural resources.*

*Level of Difficulty: 1 Easy*

40. Tax depreciation is currently calculated under what system?

- A. Sum of the years digits
- B. Accelerated cost recovery system
- C. Modified accelerated cost recovery system
- D. Straight line system
- E. None of these

The modified accelerated cost recovery system (MACRS) is the current tax depreciation system.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

41. Which is not an allowable method under MACRS?

- A. 150 percent declining balance
- B. 200 percent declining balance
- C. Straight line
- D. Sum of the years digits
- E. All of these are allowable methods under MACRS

The sum of the years digits is not an allowable method under MACRS.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

42. Which of the allowable methods allows the most accelerated depreciation?

- A. 150 percent declining balance
- B.** 200 percent declining balance
- C. Straight line
- D. Sum of the years digits
- E. None of these allow accelerated depreciation

The 200 percent declining balance method allows the most depreciation expense.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

43. How is the recovery period of an asset determined?

- A. Estimated useful life
- B. Treasury regulation
- C.** Revenue Procedure 87 - 56
- D. Revenue Ruling 87 - 56
- E. None of these

Revenue Procedure 87 - 56 helps taxpayers determine the recovery period for assets.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

44. Which of the following depreciation conventions are not used under MACRS?

- A. Full-month
- B. Half-year
- C. Mid-month
- D. Mid-quarter
- E. All of these are used under MACRS

The full month convention is used for tax amortization which does not fall under MACRS depreciation.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

45. Which depreciation convention is the general rule for tangible personal property?

- A. Full-month
- B. Half-year
- C. Mid-month
- D. Mid-quarter
- E. None of these are conventions for tangible personal property

The half-year convention is the general rule for tangible personal property, while the mid-quarter convention is the exception.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

46. The MACRS recovery period for automobiles and computers is:

- A. 3 years
- B. 5 years**
- C. 7 years
- D. 10 years
- E. None of these

These assets recovery period is 5 years.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Remember*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

47. Lax, LLC purchased only one asset during the current year. It placed in service computer equipment (5-year property) on August 26 with a basis of \$20,000. Calculate the maximum depreciation expense for the current year (ignoring §179 and bonus depreciation):

- A. \$2,000
- B. \$2,858
- C. \$3,000
- D. \$4,000**
- E. None of these

The asset's recovery period is 5 years and the half-year convention applies. The calculation is  $\$20,000 \times .2 = \$4,000$ .

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*



48. Sairra, LLC purchased only one asset during the current year. It placed in service furniture (7-year property) on April 16 with a basis of \$25,000. Calculate the maximum depreciation expense for the current year, rounding to a whole number (ignoring §179 and bonus depreciation):

A. \$1,786  
**B. \$3,573**  
C. \$4,463  
D. \$5,000  
E. None of these

The asset's recovery period is 7 years and the half-year convention applies. The calculation is  $\$25,000 \times .1429 = \$3,573$ .

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

49. Beth's business purchased only one asset during the current year. It placed in service machinery (7-year property) on December 1 with a basis of \$50,000. Calculate the maximum depreciation expense (ignoring §179 and bonus depreciation):

**A. \$1,785**  
B. \$2,500  
C. \$7,145  
D. \$10,000  
E. None of these

The asset's recovery period is 7 years and the mid-quarter convention applies because the property was placed in service during the fourth quarter. The calculation is  $\$50,000 \times .0357 = \$1,785$ .

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

50. Deirdre's business purchased two assets during the current year. It placed in service computer equipment (5-year property) on January 20 with a basis of \$15,000 and machinery (7-year property) on October 1 with a basis of \$15,000. Calculate the maximum depreciation expense, rounded to a whole number (ignoring §179 and bonus depreciation):

- A. \$1,286
- B. \$5,144
- C. \$5,786
- D. \$6,000
- E. None of these

The mid-quarter convention applies. The computer is 1<sup>st</sup> quarter property and the machinery is 4<sup>th</sup> quarter property. The calculations are  $\$15,000 \times .35 = \$5,250$  and  $\$15,000 \times .0357 = \$536$ . The total is \$5,786 ( $\$5,250 + \$536$ ).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

51. Suvi, Inc. purchased two assets during the current year. It placed in service computer equipment (5-year property) on August 10 with a basis of \$20,000 and machinery (7-year property) on November 18 with a basis of \$10,000. Calculate the maximum depreciation expense, rounded to a whole number (ignoring §179 and bonus depreciation):

- A. \$857
- B. \$3,357
- C. \$5,429
- D. \$6,000
- E. None of these

The half-year convention applies. The calculations are  $\$20,000 \times .2 = \$4,000$  and  $\$10,000 \times .1429 = \$1,429$ . The total is \$5,429 ( $\$4,000 + \$1,429$ ).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

52. Wheeler LLC purchased two assets during the current year. It placed in service computer equipment (5-year property) on November 16 with a basis of \$15,000 and furniture (7-year property) on April 20 with a basis of \$11,000. Calculate the maximum depreciation expense, rounding to a whole number (ignoring §179 and bonus depreciation):

- A. \$1,285
- B. \$2,714**
- C. \$4,572
- D. \$5,200
- E. None of these

The mid-quarter convention applies. The computer is 4<sup>th</sup> quarter property and the furniture is 2<sup>nd</sup> quarter property. The calculations are  $\$15,000 \times .05 = \$750$  and  $\$11,000 \times .1785 = \$1,964$ . The total is \$2,714 ( $\$750 + \$1,964$ ).

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

53. Tasha LLC purchased furniture (7-year property) on April 20 with a basis of \$20,000 and used the mid-quarter convention. During the current year, which is the fourth year Tasha LLC owned the property, the property was disposed of on December 15. Calculate the maximum depreciation expense, rounding to a whole number:

- A. \$898
- B. \$2,095
- C. \$2,461
- D. \$2,394
- E. None of these

The mid-quarter convention applies. The property was placed in service during the 2<sup>nd</sup> quarter. The calculations are  $\$20,000 \times .1197 = \$2,394 \times 10.5/12 = \$2,095$  since the property was disposed of during the 4<sup>th</sup> quarter.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 3 Hard*

54. Anne LLC purchased computer equipment (5-year property) on August 29 with a basis of \$30,000 and used the half-year convention. During the current year, which is the fourth year Anne LLC owned the property, the property was disposed of on January 15. Calculate the maximum depreciation expense:

- A. \$432
- B. \$1,728
- C. \$1,874
- D. \$3,456
- E. None of these

The calculations are  $\$30,000 \times .1152 = \$3,456 \times .5 = \$1,728$  since the property is considered to be owned for half the year in the year of disposition.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

55. Poplock LLC purchased a warehouse and land during the current year for \$350,000. The purchase price was allocated as follows: \$275,000 to the building and \$75,000 to the land. The property was placed in service on August 12. Calculate Poplock's maximum depreciation for this first year, rounded to the nearest whole number:

- A. \$2,648
- B. \$3,371
- C. \$3,751
- D. \$4,774
- E. None of these

The mid-month convention applies. Non-residential property has a 39-year recovery period. The depreciation is \$2,648 ( $\$275,000 \times .963\%$ ).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

56. Tom Tom LLC purchased a rental house and land during the current year for \$150,000. The purchase price was allocated as follows: \$100,000 to the building and \$50,000 to the land. The property was placed in service on May 22. Calculate Tom Tom's maximum depreciation for this first year:

- A. \$1,605
- B. \$2,273
- C. \$2,408
- D. \$3,410
- E. None of these

The mid-month convention applies. Residential property has a 27.5-year recovery period. The depreciation is \$2,273 ( $\$100,000 \times 2.273\%$ ).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*



57. Simmons LLC purchased an office building and land several years ago for \$250,000. The purchase price was allocated as follows: \$200,000 to the building and \$50,000 to the land. The property was placed in service on October 2. If the property is disposed of on February 27 during the 10<sup>th</sup> year, calculate Simmons' maximum depreciation in the 10<sup>th</sup> year:

- A. \$641
- B. \$909
- C. \$5,128
- D. \$7,346
- E. None of these

The mid-month convention applies. Non-residential property has a 39-year recovery period. The depreciation is \$641 ( $\$200,000 \times 2.564\% \times 1.5/12$ ).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

58. Lenter LLC placed in service on April 29, 2012 machinery and equipment (7-year property) with a basis of \$500,000. Assume that Lenter has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing (but ignoring bonus depreciation):

- A. \$71,450.
- B. \$139,000.
- C. \$190,587.
- D. \$210,450.
- E. None of these.

The \$139,000 §179 expense is not limited. The half year convention applies. The expense is \$190,587 which is depreciation of  $\$361,000 \times .1429 = \$51,587$  plus \$139,000 of §179 expense.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 2 Medium*

59. Littman LLC placed in service on July 29, 2012 machinery and equipment (7-year property) with a basis of \$500,000. Littman's income for the current year before expensing was \$100,000. Calculate the maximum depreciation expense including §179 expensing (but ignoring bonus depreciation):

- A. \$71,450.
- B. \$190,587.
- C. \$157,160.
- D. \$210,450
- E. None of these.

The \$139,000 maximum §179 expense is limited to net income of \$100,000. The half year convention applies. The expense is \$157,160 which is depreciation of  $\$400,000 \times .1429 = \$57,160$  plus \$100,000 of §179 expense.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 2 Medium*

60. Crouch LLC placed in service on May 19, 2012 machinery and equipment (7-year property) with a basis of \$650,000. Assume that Crouch has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing (but ignoring bonus depreciation):

- A. \$92,885.
- B. \$134,883.**
- C. \$212,022.
- D. \$231,885.
- E. None of these.

The \$139,000 §179 expense is reduced to \$49,000 because of the property placed in service limitation (\$650,000 - \$560,000 threshold). The half year convention applies. The expense is \$134,883 which is depreciation of \$601,000 x .1429 = \$85,883 plus \$49,000 of §179 expense.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 2 Medium*

61. Clay LLC placed in service machinery and equipment (7-year property) with a basis of \$600,000 on June 6, 2012. Assume that Clay has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing (ignoring any possible bonus depreciation), rounded to a whole number:

- A. \$170,593
- B. \$204,877
- C. \$224,740
- D. \$285,940
- E. None of these

The \$139,000 §179 expense is reduced to \$99,000 because of the property placed in service limitation (\$600,000 - \$560,000 threshold). The half-year convention applies. The expense is \$170,593 which is depreciation of \$501,000 x .1429 = \$71,593 plus \$99,000 of §179 expense.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 3 Hard*

62. Bonnie Jo purchased a used computer (5-year property) for use in her sole proprietorship. The basis of the computer was \$2,400. Bonnie Jo used the computer in her business 60 percent of the time and used it for personal purposes the rest of the time during the first year. Calculate Bonnie Jo's depreciation expense during the first year assuming the sole proprietorship had a loss during the year (Bonnie did not place the property in service in the last quarter):
- A. \$240
  - B. \$288**
  - C. \$480
  - D. \$2,400
  - E. None of these

The asset's recovery period is 5 years and the half-year convention applies. The calculation is  $\$2,400 \times .2 \times 60\% = \$288$ .

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 2 Medium*

63. Billie Bob purchased a used computer (5-year property) for use in his sole proprietorship in the prior year. The basis of the computer was \$2,400. Billie Bob used the computer in his business 60 percent of the time during the first year. During the second year, Billie Bob used the computer 40 percent for business use. Calculate Billie Bob's depreciation expense during the second year assuming the sole proprietorship had a loss during the year (Billie Bob did not place the asset in service in the last quarter):

- A. \$0
- B. \$48**
- C. \$192
- D. \$336
- E. None of these

Because the listed property's business use drops below 50%, the straight-line method must be used and all prior years' excess depreciation must be recaptured. The asset's recovery period is 5 years and the half-year convention applies. The calculation for the current year's depreciation before adjusting for the prior year is  $\$2,400 \times .2 \times 40\% = \$192$ . But he must recapture prior depreciation of \$144 ( $\$2,400 \times .2 \times 60\% = \$288$  taken less \$144 (straight-line,  $\frac{1}{2}$  year) that would have been taken. Therefore, the current year depreciation expense is  $\$192 - \$144 = \$48$ .

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 3 Hard*

64. Potomac LLC purchased an automobile for \$30,000 on August 5<sup>th</sup> of 2012. What is Potomac's depreciation expense for 2012 (ignore any possible bonus depreciation)?

A. \$3,060  
B. \$4,287  
C. \$6,000  
D. \$30,000  
E. None of these

A luxury auto's maximum depreciation in the first year is \$3,060.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 1 Easy*

65. Arlington LLC purchased an automobile for \$40,000 on July 5<sup>th</sup> of 2012. What is Arlington's depreciation expense for 2012 if its business use percentage is 75 percent (ignore any possible bonus depreciation)?

A. \$2,295  
B. \$3,060  
C. \$6,000  
D. \$8,000  
E. None of these

A luxury auto's maximum depreciation in the first year is  $\$3,060 \times 75\% = \$2,295$ .

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 2 Medium*



66. Assume that Bethany acquires a competitor's assets on March 31<sup>st</sup>. The purchase price was \$150,000. Of that amount, \$125,000 is allocated to tangible assets and \$25,000 is allocated to goodwill (a §197 intangible asset). What is Bethany's amortization expense for the current year, rounded to the nearest whole number?

- A. \$0
- B. \$1,250
- C. \$1,319
- D. \$1,389
- E. None of these

The full-month convention applies. §197 assets have a recovery period of 180 months. The amortization is \$1,389 ( $\$25,000/180 \times 10$ ).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets; and calculate amortization expense.*

*Level of Difficulty: 2 Medium*

67. Assume that Brittany acquires a competitor's assets on September 30<sup>th</sup> of the prior year. The purchase price was \$350,000. Of that amount, \$300,000 is allocated to tangible assets and \$50,000 is allocated equally to two §197 intangible assets (goodwill and a 1-year non-compete agreement). Given, that the non-compete agreement expires on September 30<sup>th</sup> of year 2, what is Brittany's amortization expense for the second year, rounded to the nearest whole number?
- A. \$0
  - B. \$1,667
  - C. \$2,917
  - D. \$3,333
  - E. None of these

The full-month convention applies. If a section 197 asset is disposed of before it is fully recovered, the remaining basis is added to the remaining section 197 assets acquired at the same time. Section 197 assets have a recovery period of 180 months. The amortization is \$3,333 ( $\$50,000/180 \times 12$ ). The result is as if the asset never expired.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets; and calculate amortization expense.*

*Level of Difficulty: 2 Medium*

68. Jasmine started a new business in the current year. She incurred \$10,000 of start-up costs. How much of the start-up costs can be immediately expensed for the year?

- A. \$0
- B. \$2,500
- C. \$5,000
- D. \$10,000
- E. None of these

\$5,000 of start-up expenses can be immediately expensed. The \$5,000 maximum phases out dollar for dollar if more than \$50,000 of start-up costs are incurred.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets, and calculate amortization expense.*

*Level of Difficulty: 1 Easy*

69. Racine started a new business in the current year. She incurred \$52,000 of start-up costs. If her business started on November 23<sup>rd</sup> of the current year, what is the total expense she may deduct with respect to the start-up costs for her initial year, rounded to the nearest whole number?

- A. \$2,555.
- B. \$3,544.
- C. \$5,522.
- D. \$52,000.
- E. None of these.

The maximum immediate expense amount of \$5,000 phases out dollar for dollar if more than \$50,000 of start-up costs are incurred. Thus, the immediate expensing is \$3,000 (\$5,000 - (\$52,000 - \$50,000)). The amortization is \$544 (\$49,000/180) x 2 months).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets; and calculate amortization expense.*

*Level of Difficulty: 2 Medium*

70. Daschle LLC completed some research and development during June of the current year. The related costs were \$60,000. If Daschle wants to capitalize and amortize the costs as quickly as possible, what is the total amortization expense Daschle may deduct during the current year?

- A. \$0
- B. \$6,500
- C. \$7,000
- D. \$12,000
- E. None of these

The amortization when capitalization is elected is \$7,000 ( $\$60,000/60 \times 7$  months). The amortization period on capitalized research and development is not less than 60 months—and 60 months is the most often elected.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets; and calculate amortization expense.*

*Level of Difficulty: 1 Easy*

71. Jorge purchased a copyright for use in his business in the current year. The purchase occurred on July 15<sup>th</sup> and the purchase price was \$75,000. If the patent has a remaining life of 75 months, what is the total amortization expense Jorge may deduct during the current year?

- A. \$0
- B. \$5,500
- C. \$6,000
- D. \$12,000
- E. None of these

The amortization is \$6,000 ( $\$75,000/75 \times 6$ ). The amortization period on a purchased patent is the asset's remaining useful life.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets; and calculate amortization expense.*

*Level of Difficulty: 1 Easy*

72. Geithner LLC patented a process it developed in the current year. The patent is expected to create benefits for Geithner over a 10 year period. The patent was issued on April 15<sup>th</sup> and the legal costs associated with the patent were \$43,000. In addition, Geithner had unamortized research expenditures of \$15,000 related to the process. What is the total amortization expense Geithner may deduct during the current year?
- A. \$2,417
  - B.** \$2,559
  - C. \$4,108
  - D. \$4,350
  - E. None of these

The amortization is \$2,559 ( $\$58,000/204 \times 9$  months). The amortization period is 17 years regardless of the asset's expected useful life.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets; and calculate amortization expense.*

*Level of Difficulty: 1 Easy*

73. Santa Fe purchased the rights to extract turquoise on a tract of land over a five-year period. Santa Fe paid \$300,000 for extraction rights. A geologist estimates that Santa Fe will recover 5,000 pounds of turquoise. During the current year, Santa Fe extracted 1,500 pounds of turquoise, which it sold for \$200,000. What is Santa Fe's cost depletion expense for the current year?
- A. \$60,000
  - B.** \$90,000
  - C. \$110,000
  - D. \$300,000
  - E. None of these

The depletion expense is \$90,000 ( $\$300,000 / 5,000 \times 1,500$ ).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-05 Explain cost recovery of natural resources and the allowable depletion methods.*

*Level of Difficulty: 1 Easy*

74. Santa Fe purchased the rights to extract turquoise on a tract of land over a five-year period. Santa Fe paid \$300,000 for extraction rights. A geologist estimated that Santa Fe will recover 5,000 pounds of turquoise. During the past several years, 4,000 pounds were extracted. During the current year, Santa Fe extracted 1,500 pounds of turquoise, which it sold for \$250,000. What is Santa Fe's cost depletion expense for the current year?
- A. \$60,000
  - B. \$90,000
  - C. \$190,000
  - D. \$160,000
  - E. None of these

The depletion expense is \$60,000 ( $\$300,000 / 5,000 \times 1,000$ ). Cost depletion is limited to the taxpayer's basis. As a result, even though 1,500 pounds were extracted, only 1,000 pounds can be expensed under cost depletion.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-05 Explain cost recovery of natural resources and the allowable depletion methods.*

*Level of Difficulty: 1 Easy*



75. Lucky Strike Mine (LLC) purchased a silver deposit for \$1,500,000. It estimated it would extract 500,000 ounces of silver from the deposit. Lucky Strike mined the silver and sold it reporting gross receipts of \$1.8 million, \$2.5 million, and \$2 million for years 1 through 3, respectively. During years 1 - 3, Lucky Strike reported net income (loss) from the silver deposit activity in the amount of (\$100,000), \$400,000, and \$100,000, respectively. In years 1 - 3, Lucky Strike actually extracted 300,000 ounces of silver as follows:

<b>Ounces extracted per year</b>		
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
50,000	150,000	100,000

What is Lucky Strike's depletion expense for year 2 if the applicable percentage depletion for silver is 15 percent?

- A. \$200,000
- B. \$375,000
- C. \$400,000
- D. \$450,000
- E. None of these

The depletion expense is \$450,000, the greater of cost or percentage depletion. Cost depletion is \$450,000  $(\$1,500,000/500,000) \times 150,000$ . Percentage depletion is \$200,000; the lesser of the statutory percentage \$375,000  $(\$2,500,000 \times .15)$  or \$200,000  $[(\$400,000 \times 50\%) = 50 \text{ percent of net income}]$ .

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-05 Explain cost recovery of natural resources and the allowable depletion methods.*

*Level of Difficulty: 2 Medium*

## Essay Questions

76. Janey purchased machinery on April 8<sup>th</sup> of the current year. The relevant costs for the year are as follows: machinery for \$10,000, \$800 shipping, \$50 for delivery insurance, \$500 for installation, \$750 for sales tax, \$150 for the annual tune up, and \$200 of property taxes (an annual tax on business property). What is Janey's tax basis for the machinery?

\$12,100.

Feedback: An asset's basis consists of all of the costs to purchase, install, and place the asset in service. The annual tune up is a repair and the annual property tax is a general business expense. ( $\$10,000 + 800 + 50 + 500 + 750$ ).

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-01 Explain the concept of basis and adjusted basis and describe the cost recovery methods used under the tax law to recover the cost of personal property; real property; intangible assets; and natural resources.*

*Level of Difficulty: 1 Easy*

77. Jaussi purchased a computer several years ago for \$2,200 and used it for personal purposes. On November 10<sup>th</sup> of the current year, when the fair market value of the computer was \$800, Jaussi converted it to business use. What is Jaussi's tax basis for the computer?

\$800.

Feedback: When personal property is converted to business use, the basis is the lesser of the cost basis of the property or the fair market value on the date of the conversion.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-01 Explain the concept of basis and adjusted basis and describe the cost recovery methods used under the tax law to recover the cost of personal property; real property; intangible assets; and natural resources.*

*Level of Difficulty: 1 Easy*

78. Flax, LLC purchased only one asset during 2012. It placed in service a computer (5-year property) on January 16 with a basis of \$14,000. Calculate the maximum depreciation expense (ignoring §179 and bonus depreciation).

\$2,800.

Feedback: The asset's recovery period is 5 years and the half-year convention applies since less than 40 percent of the property was placed in service during the fourth quarter. The calculation is  $\$14,000 \times .2 = \$2,800$ .

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

79. Roth, LLC purchased only one asset during the current year. It placed in service computer equipment (5-year property) on November 1<sup>st</sup> with a basis of \$42,500. Calculate the maximum depreciation expense (ignoring §179 and bonus depreciation).

\$2,125.

Feedback: The asset's recovery period is 5 years and the mid-quarter convention applies since more than 40 percent of the property was placed in service during the fourth quarter. The calculation is  $\$42,500 \times .05 = \$2,125$ .

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

80. Eddie purchased only one asset during the current year. It placed in service furniture (7-year property) on May 1<sup>st</sup> with a basis of \$26,500. Calculate the maximum depreciation expense, rounded to the nearest whole number (ignoring §179 and bonus depreciation).

\$3,787.

Feedback: The asset's recovery period is 7 years and the half-year convention applies since less than 40 percent of the property was placed in service during the fourth quarter. The calculation is  $\$26,500 \times .1429 = \$3,787$ .

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

81. Teddy purchased only one asset during the current year. It placed in service machinery (7-year property) on October 1<sup>st</sup> with a basis of \$76,500. Calculate the maximum depreciation expense, rounded to the nearest whole number (ignoring §179 and bonus depreciation).

\$2,731.

Feedback: The asset's recovery period is 7 years and the mid-quarter convention applies since more than 40 percent of the property was placed in service during the fourth quarter. The calculation is  $\$76,500 \times .0357 = \$2,731$ .

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

82. Amit purchased two assets during the current year. Amit placed in service computer equipment (5-year property) on April 16<sup>th</sup> with a basis of \$5,000 and furniture (7-year property) on September 9<sup>th</sup> with a basis of \$20,000. Calculate the maximum depreciation expense (ignoring §179 and bonus depreciation):

\$3,858.

Feedback: The half-year convention applies since less than 40 percent of the property was placed in service during the fourth quarter. The calculations are  $\$5,000 \times .2 = \$1,000$  and  $\$20,000 \times .1429 = \$2,858$ . The total is \$3,858 ( $\$1,000 + \$2,858$ ).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

83. Yasmin purchased two assets during the current year. Yasmin placed in service computer equipment (5-year property) on May 26<sup>th</sup> with a basis of \$10,000 and machinery (7-year property) on December 9<sup>th</sup> with a basis of \$10,000. Calculate the maximum depreciation expense (ignoring §179 and bonus depreciation):

\$2,857.

Feedback: The mid-quarter convention applies since more than 40 percent of the property was placed in service during the fourth quarter. The calculations are  $\$10,000 \times .25 = \$2,500$  and  $\$10,000 \times .0357 = \$357$ . The total is \$2,857 ( $\$2,500 + \$357$ ).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

84. Bonnie Jo used two assets during the current year. The first was computer equipment with an original basis of \$15,000, currently in the second year of depreciation, and under the half-year convention. This asset was disposed of on October 1<sup>st</sup> of the current year. The second was furniture with an original basis of \$24,000 placed in service during the first quarter, currently in the fourth year of depreciation, and under the mid-quarter convention. What is Bonnie Jo's depreciation expense for the current year, rounded to the nearest whole number?

\$5,023.

Feedback: The depreciation expense for the current year is \$5,023. The calculations are  $\$15,000 \times .32 \times 1/2 \text{ year} = \$2,400$  and  $\$24,000 \times .1093 = \$2,623$ . The total is \$5,023 ( $\$2,400 + \$2,623$ ).

AACSB: Analytic

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

Blooms: Analyze

Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.

Level of Difficulty: 2 Medium

85. Kristine sold two assets on March 20<sup>th</sup> of the current year. The first was machinery with an original basis of \$51,000, currently in the fourth year of depreciation, and under the half-year convention. The second was furniture with an original basis of \$16,000 placed in service during the fourth quarter, currently in the third year of depreciation, and under the mid-quarter convention. What is Kristine's depreciation expense for the current year, rounded to the nearest whole number?

\$3,579.

Feedback: The depreciation on those assets are  $\$51,000 \times .1249 \times 1/2 \text{ year} = \$3,185$  and  $\$16,000 \times .1968 \times 1.5/12 = \$394$ , the total is \$3,579 ( $\$3,185 + \$394$ ).

AACSB: Analytic

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

86. Timothy purchased a new computer for his consulting practice on October 15<sup>th</sup> of the current year. The basis of the computer was \$4,000. During the Thanksgiving holiday, he decided the computer didn't meet his business needs and gave it to his college-aged son in another state. The computer was never used for business purposes again. Timothy had \$50,000 of taxable income before depreciation. What is Timothy's total cost recovery expense with respect to the computer during the current year?

\$0.

Feedback: No depreciation expense or \$179 expense may be taken on an asset which is acquired by and disposed of during the same taxable year.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

87. During August of the prior year, Julio purchased an apartment building that he used as a rental property. The basis was \$1,400,000. Calculate the maximum depreciation expense during the current year?

\$50,904.

Feedback: The asset's recovery period is 27.5 years and the mid-month convention applies for real property. The calculation is  $\$1,400,000 \times .03636 = \$50,904$ .

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*

88. During April of the current year, Ronen purchased a warehouse that he used for business purposes. The basis was \$1,600,000. Calculate the maximum depreciation expense during the current year?

\$29,104.

Feedback: The asset's recovery period is 39 years and the mid-month convention applies for real property. The calculation is  $\$1,600,000 \times .01819 = \$29,104$ .

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 1 Easy*



89. An office building was purchased on December 9<sup>th</sup> several years ago for \$2,500,000. The purchase price was allocated as follows: building \$1,900,000, landscaping \$100,000, and land \$500,000. During the current year, the 10<sup>th</sup> year, the building was sold on March 10<sup>th</sup>. Calculate the maximum depreciation expense for the real property during the current year, rounded to the nearest whole number?

\$10,149.

Feedback: The asset's recovery period is 39 years and the mid-month convention applies for real property. The calculation is  $\$1,900,000 \times .02564 \times (2.5/12) = \$10,149$ . Depreciation is allowed for 2.5 months in the year of disposal. The land improvements are not considered to be real property. The land is non-depreciable.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Level of Difficulty: 2 Medium*

90. Olney LLC placed in service on July 19, 2012 machinery and equipment (7-year property) with a basis of \$550,000. Assume that Olney has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing, rounded to the nearest whole number (but ignoring bonus depreciation):

\$197,732.

Feedback: The \$139,000 §179 expense is not limited. The half year convention applies. The expense is \$197,732 which is depreciation of  $\$411,000 \times .1429 = \$58,732$  plus \$139,000 of §179 expense.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 2 Medium*

91. Columbia LLC placed in service on October 9, 2012 machinery and equipment (7-year property) with a basis of \$625,000. Assume that Columbia has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing (but ignoring bonus depreciation) for the year, rounded to the nearest whole number:

\$93,671.

Feedback: The \$139,000 §179 expense is limited to \$74,000 because of the property placed in service limitation ( $\$139,000 - (\$625,000 - \$560,000)$ ). The mid-quarter convention applies. The expense is \$93,671 which is depreciation of  $\$551,000 \times .0357 = \$19,671$  plus \$74,000 of §179 expense.

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 2 Medium*

92. In 2012, Northern LLC placed in service on September 6<sup>th</sup> machinery and equipment (7-year property) with a basis of \$580,000. Assume that Northern has sufficient income to avoid any limitations. Calculate the maximum depreciation expense including §179 expensing (ignore any potential bonus depreciation), rounded to the nearest whole number.

\$184,877.

Feedback: The \$139,000 §179 expense is reduced to \$119,000 because of the property placed in service limitation ( $\$139,000 - (\$580,000 - \$560,000)$ ). The half-year convention applies. The expense is \$184,877 which is depreciation of  $\$461,000 \times .1429 = \$65,877$  plus \$119,000 of §179 expense.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 3 Hard*

93. Assume that Reid has 2012 taxable income of \$125,000 before any §179 expense and acquired the following assets: he placed in service computer equipment (5-year property) on August 6<sup>th</sup> with a basis of \$100,000 and machinery (7-year property) on November 9<sup>th</sup> with a basis of \$100,000. Calculate the maximum depreciation expense including §179 expensing (but not bonus depreciation).

\$140,000.

Feedback: The \$139,000 §179 expense is reduced to \$125,000 because the expensing is limited to net income before the §179 expense. The mid-quarter convention does not apply because the determination of the convention occurs after the basis reduction from the §179 expensing. Reid chooses to use the §179 election on the 7-year machinery first, then the remaining \$25,000 amount on the computer. This leaves \$75,000 basis in the computer that was acquired on August 6. Therefore the half-year convention applies. Reid's expense is \$140,000 which is depreciation of  $\$75,000 \times .2 = \$15,000$  plus \$125,000 of §179 expense. Choosing to use the §179 immediate expensing option on the 7-year property results in accelerated depreciation compared to choosing the 5-year property.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 2 Medium*

94. Phyllis purchased \$8,000 of specialized audio equipment that she uses in her business regularly. Occasionally, she uses the equipment for personal use. During the first year, Phyllis used the equipment for business use 70 percent of the time; however, during the current (second) year the business use fell to 40 percent. Assume that the equipment is seven-year MACRS property and is under the half-year convention. Assume the ADS recovery period is 10 years. What is the depreciation allowance for the current year, rounded to the nearest whole number?

Phyllis must recapture \$200 into income this year.

Feedback: Because the business use fell below 50 percent for the listed property, the depreciation for all years must be recalculated under the straight-line method over the ADS recovery period. During the first year depreciation was \$800 ( $\$8,000 \times .1429 \times .7$ ). Using the straight-line method over the ADS recovery period the depreciation for year 1 would be \$280 ( $\$8,000/10 \text{ years} \times .7 \times \frac{1}{2} \text{ year}$ ). Depreciation for year 2 would be \$320 ( $\$8,000/10 \text{ years} \times .4$ ). Because the actual depreciation taken in year 1 exceeds the sum of the depreciation for years 1 and 2 under the ADS method, Phyllis must actually recapture \$200 into income during the current year.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 3 Hard*

95. Alexandra purchased a \$35,000 automobile during 2012. The business use was 70 percent. What is the allowable depreciation for the current year (ignore any possible bonus depreciation)?

\$2,142.

Feedback: The maximum depreciation for a luxury automobile during 2012 is \$3,060. Because the business use was 70 percent, depreciation is \$2,142 ( $\$3,060 \times .7$ ).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 1 Easy*

96. Boxer LLC has acquired various types of assets recently. Below is a list of assets acquired during 2011 and 2012:

<u>Asset</u>	<u>Cost Basis</u>	<u>Convention</u>	<u>Date Placed in Service</u>
Machinery	25,000	Half year	January 24, 2011
Warehouse	800,000	Mid month	August 1, 2011
Furniture	100,000		October 5, 2012
Computer equipment	65,000		September 10, 2012
Office equipment	34,000		September 28, 2012
Automobile	35,000		July 15, 2012
Office building	800,000		September 24, 2012

Boxer did not elect §179 expense or potential bonus depreciation in 2011, but would like to elect §179 expense for 2012 (assume that taxable income is sufficient). Calculate Boxer's maximum depreciation expense for 2012, rounded to the nearest whole number (ignore bonus depreciation for 2012).

\$186,687.

Feedback: §179 allows expensing of \$139,000 of the 2012 tangible personal property and will be applied to the longer lived assets first (furniture \$100,000; office equipment \$34,000) with the remaining \$5,000 applied to the computer equipment. The remaining basis of the computer equipment (\$60,000) is depreciated using the half-year convention for a 5-year asset resulting in depreciation expense of \$12,000. The depreciation on the car is limited to a maximum amount of \$3,060 for 2012. The depreciation of the remaining assets is as follows: 2011 machinery ( $\$25,000 \times .2449 = \$6,123$ ), 2011 warehouse ( $\$800,000 \times .02564 = \$20,512$ ), and the 2012 office building ( $\$800,000 \times .00749 = \$5,992$ ).

<u>Asset</u>	<u>2012 Depreciation</u>
Machinery	6,123
Warehouse	20,512
Furniture	100,000
Computer equipment	17,000*
Office equipment	34,000
Automobile	3,060
Office building	<u>5,992</u>
Total	\$186,687

\* \$5,000 §179 expense + \$12,000 depreciation = \$17,000

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-02 Determine the applicable cost recovery (depreciation) life; method; and convention for tangible personal and real property and calculate the deduction allowable under basic MACRS.*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 3 Hard*

97. Assume that Yuri acquires a competitor's assets on May 1<sup>st</sup>. The purchase price was \$500,000. Of the amount, \$325,000 is allocated to tangible assets and \$175,000 is allocated to goodwill (a §197 intangible asset). What is Yuri's amortization expense for the current year, rounded to the nearest whole number?

\$7,778.

Feedback: The full-month convention applies. Section 197 assets have a recovery period of 180 months. The amortization is  $\$7,778 = (\$175,000/180) \times 8$ .

*AACSB: Analytic*

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-03 Explain the additional special cost recovery rules (§179; bonus; listed property) and calculate the deduction allowable under these rules.*

*Level of Difficulty: 1 Easy*



98. Assume that Cannon LLC acquires a competitor's assets on June 15<sup>th</sup> of a prior year. The purchase price was \$450,000. Of the amount, \$196,200 is allocated to tangible assets and \$253,800 is allocated to three \$197 intangible assets: \$153,000 to goodwill, \$50,400 to a customer list with an expected life of 8 years, and \$50,400 to a 3 year non-compete agreement. On May 30<sup>th</sup> of the second year, the customer list is sold for \$10,000. Please round your amortization amounts to the nearest whole number. Round your allocation percentage to the nearest whole percentage (e.g., .1234 as 12%)
- 1) What is Cannon's amortization expense for the second year?
  - 2) What is the basis of the intangibles at the end of the second year?

1. Cannon's amortization expense for the second year is \$16,500. This is calculated as follows:

	<b>Goodwill</b>	<b>Covenant</b>	<b>Customer List</b>	<b>Total</b>
Initial basis	\$153,000	\$50,400	\$50,400	
Recovery Period, months	180	180	180	
Per month	\$850	\$280	\$280	
Year 1, 7 months	\$5,950	\$1,960	\$1,960	
Year 2, 5 months	\$4,250	\$1,400	\$1,400	\$7,050
Basis, May 30, Year 2	\$142,800	\$47,040	\$47,040	
Selling price			\$(10,000)	
Remaining basis	\$142,800	\$47,040	\$37,040	
Reallocation prorata on \$189,840 (Goodwill and covenant) 75%, 25%	\$27,780	\$9,260	\$(37,040)	
Reallocated basis	\$170,580	\$56,300	\$0	
Remaining months	168	168		
Per month, rounded	\$1,015	\$335		
June – Dec. (7 months)	\$7,105	\$2,345		\$9,450
1) Total amortization, Year 2	\$11,355	\$3,745	\$1,400	<b>\$16,500</b>

2. The basis of the remaining assets is as follows:

	Goodwill	Covenant
Initial basis	\$153,000	\$50,400
Amortization Year 1, 7 months	(5,950)	(1,960)
Amortization Year 2, 5 months	(4,250)	(1,400)
Reallocated basis, May 30, Year 2	27,780	9,260
Amortization Year 2, 7 months	(7,105)	(2,345)
Basis, end of Year 2	<b>\$163,475</b>	<b>\$53,955</b>

AACSB: Analytic

AICPA BB: Critical Thinking

Blooms: Analyze

Blooms: Apply

Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets; and calculate amortization expense.

Level of Difficulty: 3 Hard

99. Oksana started an LLC on November 2 of the current year. She incurred \$30,000 of start-up costs. How much of the start-up costs can be immediately expensed for the year? How much amortization may Oksana deduct in the first year?

\$5,000 of start-up expenses can be immediately expensed and \$278 ( $\$25,000/180 \times 2$  months) of amortization may be deducted.

AACSB: Analytic

AICPA BB: Critical Thinking

Blooms: Analyze

Blooms: Apply

Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets; and calculate amortization expense.

Level of Difficulty: 2 Medium

100. Putin Corporation began business on September 23<sup>rd</sup> of the current year. It incurred \$40,000 of start-up costs and \$60,000 of organizational expenditures.

- 1) How much may be immediately expensed for the year?
- 2) How much amortization may be deducted in the first year, rounded to the nearest whole number?

1) \$5,000 of start-up expenses can be immediately expensed. Putin may not immediately expense the organizational costs because the immediate expensing is phased out dollar for dollar for organization expenditures exceeding \$50,000. As a result when the expenses exceed \$55,000, no immediate expensing can be taken.

2) \$2,111  $(\$35,000/180) \times 4 \text{ months} = \$778$  of the start-up costs may be amortized and  $(\$60,000/180) \times 4 \text{ months} = \$1,333$  of the organizational expenditures may be amortized.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets, and calculate amortization expense.*

*Level of Difficulty: 2 Medium*

101. Paulsen incurred \$55,000 of research and experimental expenses and began amortizing them over 60 months during June of year 1. During May of year 3, Paulsen received a patent based upon the research being amortized. \$36,000 of legal expenses for the patent was incurred.

1) What is the basis of the patent, rounding amortization for each year to the nearest whole number?

2) What is the amortization expense with respect to the patent during the year it was issued, rounded to the nearest whole number?

1) The basis of the patent is \$69,000 (\$36,000 of legal costs and \$33,000 of unamortized research expenses). The research expense is  $\$55,000/60 \text{ months} = \$916.67$ . Year 1 is \$6,417 for 7 months; year 2 is a full year of \$11,000, and 5 months in year 3 is \$4,583. Total research expensed is \$22,000 and remaining unamortized expense to add to patent capitalization is \$33,000.

2) The amortization is  $\$2,368 = (\$69,000/204 \text{ months}) \times 7 \text{ months in year 3}$ .

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Blooms: Apply*

*Learning Objective: 02-04 Explain the rationale behind amortization; describe the four categories of amortizable intangible assets; and calculate amortization expense.*

*Level of Difficulty: 3 Hard*

102. Sequoia purchased the rights to cut timber on several tracts of land over a fifteen year period. It paid \$500,000 for cutting rights. A timber engineer estimates that 500,000 board feet of timber will be cut. During the current year, Sequoia cut 45,000 board feet of timber, which it sold for \$900,000. What is Sequoia's cost depletion expense for the current year?

The depletion expense is  $\$45,000 (\$500,000/500,000) \times 45,000$ .

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*Blooms: Analyze*

*Learning Objective: 02-05 Explain cost recovery of natural resources and the allowable depletion methods.*

*Level of Difficulty: 1 Easy*

103. PC Mine purchased a platinum deposit for \$3,500,000. It estimated it would extract 17,000 ounces of platinum from the deposit. PC mined the platinum and sold it reporting gross receipts of \$500,000 and \$8 million for years 1 and 2, respectively. During years 1 and 2, PC reported net income (loss) from the platinum deposit activity in the amount of (\$100,000) and \$3,800,000, respectively. In years 1 and 2, PC actually extracted 2,000 and 8,000 ounces of platinum. What is PC's depletion expense for years 1 and 2 if the applicable percentage depletion for platinum is 22 percent, rounded to the nearest whole number?

PC has cost depletion expense of \$411,765 ( $\$3,500,000/17,000 \times 2,000$ ) in year 1. Because PC has a loss in year 1, there is no percentage depletion. PC has percentage depletion of \$1,760,000 in year 2: the lesser of \$1,760,000 (\$8 million  $\times$  22 percent) or \$1,900,000 (\$3.8 million  $\times$  50 percent). Cost depletion was \$1,647,059 ( $\$3,500,000/17,000 \times 8,000$ ) and is less than percentage depletion.

*AACSB: Analytic**AICPA BB: Critical Thinking**Blooms: Analyze**Blooms: Apply**Learning Objective: 02-05 Explain cost recovery of natural resources and the allowable depletion methods.**Level of Difficulty: 2 Medium*