Chapter 02 Test Bank - Static KEY

1. A proper fraction is when the numerator is greater than the denominator.

FALSE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

2. The writing of a whole number and a proper fraction is an improper fraction.

FALSE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

3. 4/5 is a proper fraction.

TRUE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

4. When a mixed number is converted to an improper fraction, the new numerator is placed over the old denominator.

TRUE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

5. The greatest common divisor can be zero.

FALSE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

6. Inspection as well as the step approach could be used to find the least common denominator.

TRUE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

7. In the step approach the last divisor used is the greatest common divisor.

TRUE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 3 Hard
Gradable: automatic
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

8. Fractions should never be reduced to their lowest terms.

FALSE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

9. The greatest common divisor and the least common denominator are really the same.

FALSE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 3 Hard
Gradable: automatic
Learning Objective: 02-02 (1) Add like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

10. The least common denominator of fractions can be found by observation or by the use of prime numbers.

TRUE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-02 (1) Add like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

11. 4 is a prime number.

FALSE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-02 (2) Find the least common denominator by inspection and prime numbers.
Topic: LU 02-02 Adding and Subtracting Fractions

12. 2, 5, 7, 11, and 13 are all examples of prime numbers.

TRUE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 3 Hard
Gradable: automatic
Learning Objective: 02-02 (2) Find the least common denominator by inspection and prime numbers.
Topic: LU 02-02 Adding and Subtracting Fractions

13. Cancellation is a technique to reduce fractions to the lowest terms.

TRUE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-03 (2) Use the cancellation method in the multiplication and division of fractions.
Topic: LU 02-03 Multiplying and Dividing Fractions

14. The reciprocal is not used in dividing fractions.

FALSE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (2) Use the cancellation method in the multiplication and division of fractions.
Topic: LU 02-03 Multiplying and Dividing Fractions

15. Reducing a fraction to the lowest terms does not change the fraction's value.

TRUE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

16. Raising a fraction to higher terms does change the value of the fraction.

FALSE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember

Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

17. A mixed number is a whole number and a proper fraction.

TRUE

Review your notes on terminology and vocabulary related to this material.

Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

18. 1 4/5 is an example of a(n):

A. Proper fraction
B. Mixed number
C. Improper fraction
D. Complex fraction
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

19. 13/2 converted to a mixed number is:

A. 6 1/6
B. 6 1/2
C. 6 1/3
D. 6 3/4
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

20. The greatest common divisor of 20/30 is:

A. 2
B. 5
C. 1
D. 10
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

21. The first step in using the step approach to finding the greatest common divisor is to:

A. Use the observation method
B. Divide the larger number into the smaller number

C. Divide the numerator into the denominator
D. Divide the remainder into the divisor
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

22. The first step in converting 30/50 = ?/200 to higher terms is to:

A. Multiply 4 times 30
B. Divide 200 by 50
C. Divide 50 by 200
D. Multiply 200 times 30
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

23. 4/5 + 6/5 equals:

A. 10/5
B. 5/1
C. 2
D. 100
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-02 (1) Add like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

24. In adding 4/5 + 18/100 the least common denominator is:

A. 5
B. 20
C. 50
D. 100
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-02 (1) Add like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

25. Which of the following is not a prime number?

A. 5
B. 11
C. 19
D. 24
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium

Gradable: automatic
Learning Objective: 02-02 (2) Find the least common denominator by inspection and prime numbers.
Topic: LU 02-02 Adding and Subtracting Fractions

26. The LCD of 6/20, 9/5, 7/50, and 3/4 is:

A. 5
B. 4
C. 20
D. 50
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-02 (2) Find the least common denominator by inspection and prime numbers.
Topic: LU 02-02 Adding and Subtracting Fractions

27. Canceling:

A. Raises fractions to the highest terms
B. Results in multiplying a number evenly into the top and bottom of a fraction or fractions
C. Has a definite set of rules
D. Is an alternative method to reducing fractions to the lowest terms
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 3 Hard
Gradable: automatic
Learning Objective: 02-03 (2) Use the cancellation method in the multiplication and division of fractions.
Topic: LU 02-03 Multiplying and Dividing Fractions

28. The reciprocal is used:

A. In multiplying fractions
B. To replace the cancellation method
C. In dividing whole numbers
D. In dividing fractions
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-03 (2) Use the cancellation method in the multiplication and division of fractions.
Topic: LU 02-03 Multiplying and Dividing Fractions

29. Which step is not included in the step approach to calculating the greatest common divisor?

A. Divide small number into larger number
B. Divide remainder into divisor of last step
C. Continue dividing remainder into divisor till no remainder exists
D. Divide larger number into smaller number
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 3 Hard
Gradable: automatic
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

30. To find LCD by prime numbers you should:

A. Take numerators and arrange in a row

B. Divide numerators by highest prime number
C. Continue division until no prime number will divide into at least three numbers
D. Your first step should be to take denominators and arrange in a row
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 3 Hard
Gradable: automatic
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

31. A trip to Portland, Oregon, from Boston will take 7 3/4 hours. Assuming we are two-thirds of the way there, how much longer in hours will the trip take?

A. 7/12
B. 1 7/12
C. 2 7/12
D. 2 1/2
E. None of these

Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-02 (3) Subtract like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

32. Shelley Tilton bought 1 3/4 lbs of sliced roast beef, 8 1/2 lbs of sliced ham, and 3/4 lb of coleslaw at Albertson's Market. What was the total weight of her purchases?

A. 11 lbs
B. 10 lbs
C. 9 ½ lbs
D. 12 lbs
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-02 (4) Add and subtract mixed numbers with the same or different denominators.
Topic: LU 02-02 Adding and Subtracting Fractions

33. Joe Jackson worked 8 hours on Monday, 4 1/4 hours on Tuesday, 6 1/8 hours on Wednesday, 7 1/4 hours on Thursday, and 8 1/8 hours on Friday. Calculate the total number of hours Joe worked for the week.

A. 35
B. 33 1/8
C. 32 3/4
D. 33 3/4
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-02 (4) Add and subtract mixed numbers with the same or different denominators.
Topic: LU 02-02 Adding and Subtracting Fractions

34. Cartons of humidifiers are stocked in 25,500 sq. ft. of warehouse space at Home Depot. If each carton requires 4 1/4 sq. ft. of space, how many cartons can be stored in this space?

A. 60
B. 600
C. 6,000
D. 60,000

E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

35. At a local Subway, Jill Jones owns 1/4 of the company and Roger Moore owns 1/8. Bill Moore owns the rest. What part is owned by Bill?

A. 1/4
B. 1/8
C. 3/8
D. 5/8
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hard
Gradable: automatic
Learning Objective: 02-02 (3) Subtract like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

36. Matt Kaminsky bought a Volvo that is 3 3/4 times as expensive as the car his parents bought. If his parents paid $8,000 for theirs, what is the cost of Matt's car?

A. $26,000
B. $28,000
C. $29,000
D. $30,000
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

37. The price of a new Apple iPod has increased by 1/4. If the original price of the Apple was $200, what is the price today?

A. $150
B. $250
C. $200
D. $175
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

38. The price of a Panasonic 3D flat screen television decreased by 1/5. If the original price was $1,500, what is the price today?

A. $300
B. $1,200
C. $1,800
D. $1,000
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply

Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (2) Use the cancellation method in the multiplication and division of fractions.
Topic: LU 02-03 Multiplying and Dividing Fractions

39. Lisa Wolf has 20 1/8 days of vacation per year at Walmart. To date she has taken 4 1/2 days in January, 3 1/4 days in February, and 4 1/8 days in March. How much more vacation time is Lisa entitled to?

A. 9 1/4
B. 11 7/8
C. 8 1/4
D. 8 1/2
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-02 (4) Add and subtract mixed numbers with the same or different denominators.
Topic: LU 02-02 Adding and Subtracting Fractions

40. A machine at Staples photocopies 12 1/4 pages per minute. If the machine runs 700 minutes, how many pages will be photocopied?

A. 8,750
B. 7,850
C. 5,875
D. 8,575
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

41. Jeff Jones is paid $60 per day at his job at J.C. Penney. Jeff became ill on Monday and had to leave after 2/5 of a day. What did he earn on Monday? (Assume no work, no pay.)

A. $24
B. $36
C. $30
D. $25
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

42. The price of a baseball ticket at Yankee Stadium increased by 2 1/4 over the last three years. If the original price of a ticket was $60, what is the price of the ticket today?

A. $195
B. $150
C. $135
D. $153
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic

Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

43. Alice Hall, who loves to cook, makes an apple cake (serves six) for her family. The recipe calls for 2 1/2 pounds of apples, 2 1/4 cups of flour, 1/5 cup of margarine, 1 1/4 cups of sugar, and 4 eggs. Since guests are coming, she would like to make this cake so it will serve 24. How many pounds of apples should she use?

A. 10
B. 15
C. 17 1/2
D. 10 1/4
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

44. In a recent local taste contest testing Coke against Pepsi, it was found that 3/5 of all people surveyed preferred the taste of Coke. If 7,500 people were in the survey, how many chose Pepsi?
A. 4,500
B. 5,400
C. 3,500
D. 3,000
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

45. The price of a $200,000 home listed by REMAX was reduced by 1/20. What is the new price?

A. $180,000
B. $190,000
C. $170,000
D. $160,000
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

46. Mia Wong bought a new Bose radio for $280. Bill, a friend of Mia's, can afford to pay only 3/4 as much as Mia. What is the most Bill could pay for the radio?

A. $70
B. $210
C. $200
D. $190
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

47. Jane Ring cut a 6-ft. Subway sandwich into 1 1/2-ft. sandwiches. How many sandwiches can be cut from the 6-ft. sub?
A. 6
B. 8
C. 5
D. 10
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

48. The price of a Swatch watch increased 1 3/4 times from the price last year. If this year's price is $175, what was last year's price?

A. $75
B. $100
C. $60
D. $90
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hard
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

49. An American Airlines trip from Boston to Los Angeles takes 8 1/2 hours. Assuming we are 1/4 of the way, how long has the trip taken so far?

A. 1 1/16
B. 7 7/16
C. 2 1/10
D. 6 7/16
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

50. Lee Wine bought pizza from Pizza Hut for her son's party. The owner of the store said it would feed eight. Assuming six children show up for the party, what part of the pizza remains uneaten?

A. 1/4
B. 3/4
C. 1/3
D. 4/5
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

51. The greatest common divisor of 60/216 is:

A. 2
B. 12

C. 10
D. 5
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-02 (2) Find the least common denominator by inspection and prime numbers.
Topic: LU 02-02 Adding and Subtracting Fractions

52. The LCD for 3/10, 20/25, and 18/75 is:

A. 5
B. 15
C. 25
D. 7
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-02 (2) Find the least common denominator by inspection and prime numbers.
Topic: LU 02-02 Adding and Subtracting Fractions

53. Jordan traveled 6/7 of an estimated 1,800-mile trip. How many miles remain in her trip:

A. 154
B. 257
C. 291
D. 400
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 1 Easy
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

54. The cost of a regular price ticket to a St. Louis Cardinals baseball game was $60. During the World Series the price increased by 2/5. What did the fans pay?

A. $65
B. $69
C. $80
D. $84
E. None of these

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

55. The average number of students for Professor Shannon's finance class was 20. During the fall semester there was an increase of 3/5 in students. How many students are registered for his class in the fall?

A. 32
B. 24
C. 30
D. 26

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium

Gradable: automatic
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

56. Match the following terms with their definitions.

1. Fraction.	Interchanging denominator and numerator.	2
2. Reciprocal.	Whole number and a proper fraction.	7
3. Improper fraction.	Smallest whole number.	10
4. Cancellation.	No number divides evenly except 1 into numerator.	12
5. Proper fractions.	Numerator less than denominator.	5
6. Denominator.	Equivalent to the original.	13
7. Mixed numbers.	Expresses a part of a whole number.	1
8. Prime numbers.	Number divisible by itself and 1.	8
9. Greatest common divisor.	Numerator is equal to or greater than the denominator.	3
10. Least common denominator (LCD).	Top of fraction.	11
11. Numerator.	Largest possible number.	9
12. Lowest terms.	Bottom part of fraction.	6
13. Higher terms.	Reducing process.	4

Blooms: Remember
Difficulty: 2 Medium
Gradable: automatic
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

57. Indicate type of fraction:
3 4/7

Mixed

Feedback: This fraction has both a whole number and a fraction. The fraction cannot be reduced further.

Blooms: Understand
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

58. Indicate type of fraction:
6/7

Proper

Feedback: This fraction does not have a whole number and has a numerator that is smaller than the denominator and cannot be reduced further.

Blooms: Understand
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

59. Indicate type of fraction:
10/9

Improper

Feedback: This fraction does not have a whole number but does have a numerator that is larger than the denominator.

Blooms: Understand
Difficulty: 1 Easy
Gradable: manual

Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

60. Convert to a mixed number:
89/6

14 5/6

Feedback: 6 goes into 89 fourteen times with 5 left over.

Blooms: Understand
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

61. Convert to an improper fraction:
14 1/8

113/8

Feedback: 8 times 14 plus 1 equals 113.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

62. A. Find greatest common divisor and B. Convert to lowest terms. For (A) use the step approach or the observation method: 18/66

A. _____
B. _____

A. 6; B. 3/11

Feedback: A. The largest number that goes into both 18 and 66 is 6. B. Using the step approach, 18 goes evenly into 66 three times to equal 54, leaving a remainder of 12. 12 goes into 18 one time, leaving a remainder of 6; divide 18/66 by 6/6 which equals 3/11 reduced to lowest terms.

Blooms: Apply
Difficulty: 3 Hard
Gradable: manual
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

63. Convert to higher terms:
8/9 = 96/?

108

Feedback: Divide 96 by 8 to get 12. Multiply 9 by 12 to get 108, which is the answer.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

64. Add (reduce to lowest terms):
6/15 + 2/15

8/15

Feedback: Since there are common denominators, you only need to add 6 and 2 to get 8. 8/15 cannot be reduced further.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

65. Add (Reduce to lowest terms):
1/7 + 5/14

7/14 = 1/2

Feedback: Multiply 1/7 by 2/2 and add the fractions to get 7/14, which can then be reduced to 1/2.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-02 (1) Add like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

66. Find LCD by using prime numbers (show work):
1/8 + 1/4 + 1/3 + 1/6

24

Feedback: List the denominators in a row, sorted left to right, then break each number down to its prime values by dividing by 2, carrying down any numbers that cannot divide evenly. Once you have used 2 for dividing you will have to use the next prime number which is 3. Multiply the prime numbers (2 x 2 x 3) times the denominators (2 x 1 x 1 x 1) equals 24.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-02 (2) Find the least common denominator by inspection and prime numbers.
Topic: LU 02-02 Adding and Subtracting Fractions

67. Subtract (reduce to lowest terms if necessary):
13 1/7 - 5 5/21

7 19/21

Feedback: Convert 13 1/7 and 5 5/21 to improper fractions, then find the lowest common denominator [21] and subtract. Convert the answer to a mixed fraction.
92/7 - 110/21 276/21 -
110/21 = 166/21 = 7 19/21

Blooms: Apply
Difficulty: 3 Hard
Gradable: manual
Learning Objective: 02-02 (3) Subtract like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

68. Multiply (cancel as needed):
11 3/8 × 6 6/7

78
Feedback: Before multiplying, remember to convert the mixed fractions into improper fractions. 91/8 x 48/7 = 4368/56 = 78

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

69. At Victor's grocery, each case of Cheerios takes up 3 1/2 square feet. If Victor sets aside 6,930 square feet, how many cases of Cheerios can Victor store?

1,980

Feedback: Divide 6,930 by 3 1/2, which is the same as multiplying 6,930 by 2/7.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

70. On a plane trip to Hawaii, the baggage weight projected was 2,182 1/4 lbs. The actual weight of all bags totaled 2,095 1/3 lbs. By how much was the projected weight overstated?

86 11/12 lbs.

Feedback: After converting the fractions to have 12 as a common denominator, subtract the actual from the projected baggage weight.

Blooms: Apply
Difficulty: 3 Hard
Gradable: manual
Learning Objective: 02-02 (4) Add and subtract mixed numbers with the same or different denominators.
Topic: LU 02-02 Adding and Subtracting Fractions

71. Acme Track Incorporated received 360 pairs of Nike running shoes. Each pair sells for $58. Acme found 1/9 of the pairs to be defective and returned them. Assuming each pair cost Acme $26, what profit did Acme make assuming all non-defective sneakers were sold?
$10,240

Feedback: Find the difference between the sale price and the cost [$32]. Divide 360 by 9 to get 40 and subtract the 40 pairs of defective shoes from the 360. Take this value of 320 and multiply it by $32 to get the answer. [This is the same as squaring 32 and attaching a zero!]

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

72. Last year's sales at Mel's Cinema totaled $144,600. This year's sales should increase by 1/3. How much should sales increase by, and what will sales be in the new year?
$48,200; $192,800

Feedback: Multiply the sales total by 1/3 to get the increase in sales and then add that increase back to the current sales total to get the next year's total.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

73. Indicate type of fraction:
3 ¾

Mixed

Feedback: This fraction has both a whole number and a fraction. The fraction can be reduced further.

Blooms: Understand
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

74. Indicate type of fraction:
5/6

Proper

Feedback: This fraction does not have a whole number and has a numerator that is smaller than the denominator and cannot be reduced further.

Blooms: Understand
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

75. Indicate type of fraction:
10/9

Improper

Feedback: This fraction does not have a whole number but does have a numerator that is larger than the denominator and can be reduced further by dividing the numerator by the denominator equaling 1 and 1/9. All improper fractions can be reduced to a whole number or a mixed fraction unless otherwise stated.

Blooms: Understand
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

76. Convert to a mixed number:
113/6

$$18\frac{5}{6} \quad 6\overline{)113}\ \text{Rem}\ 5$$

Feedback: 6 divides into 113 eighteen times with a remainder of 5.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

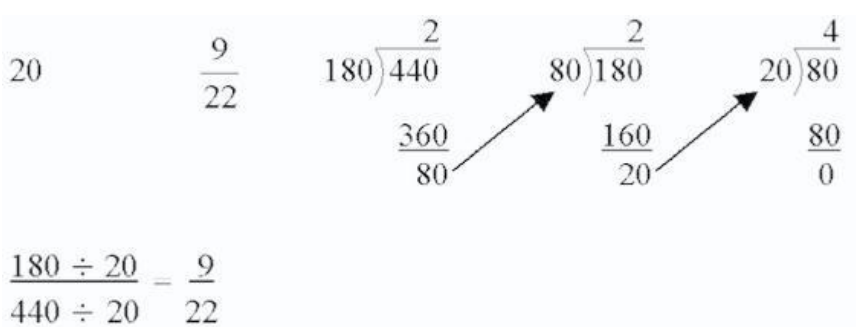
77. Convert to an improper fraction:
9 1/8

$$\frac{73}{8} \qquad \frac{72 + 1}{8}$$

Feedback: 9 times 8 plus 1 equals 73. Show the 73 as the new denominator over the 8.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

78. Calculate greatest common divisor by step approach and reduce to lowest terms:
180/440



Feedback: Use the step approach to determine that 20 is the greatest common divisor. Divide both the numerator and the denominator by 20 to show the fraction in lowest terms.

Blooms: Apply
Difficulty: 3 Hard
Gradable: manual
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

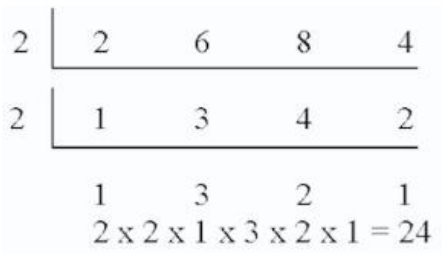
79. Convert to higher terms: 7/19 = ?/114

114 ÷ 19 = 6; 6 × 7 = 42

Feedback: Divide 14 by 19 to get 6. Multiply the numerator of 7 by 6 to get 42.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

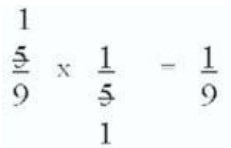
80. Find LCD by using prime numbers (show work):
1/2 + 1/6 + 1/8 + 1/4



Feedback: Remember to list the denominator in a sorted row before dividing each number by 2 and carrying down those which have remainders.

Blooms: Apply
Difficulty: 3 Hard
Gradable: manual
Learning Objective: 02-02 (2) Find the least common denominator by inspection and prime numbers.
Topic: LU 02-02 Adding and Subtracting Fractions

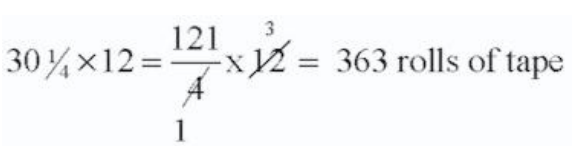
81. 5/9 ÷ 5 =



Feedback: Use canceling to reduce the 5's in the numerator and denominator to 1's to get an answer of 1/9.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

82. At Flynn Manufacturing, 30 1/4 rolls of tape are made each hour on a new high-speed machine. If the machine runs 12 hours, how many rolls of tape will be produced?



Feedback: Use canceling to multiply 30 1/4 by 12. Convert the mixed fraction into an improper fraction and reduce the 12's in the numerator and denominator to 1's to get an answer of 363, which is 121 times 3. 12 1/4 x 12/1 = 121 x 3 divided by 1 which equals 363.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (2) Use the cancellation method in the multiplication and division of fractions.
Topic: LU 02-03 Multiplying and Dividing Fractions

83. At Kentucky Fried Chicken, a survey showed 2/3 of all people preferred skinless chicken over the regular chicken. If 2,400 people responded to the survey, how many preferred regular chicken?

$$\frac{1}{3} \times 2{,}400 = 800$$

Feedback: 2/3 preferred skinless, leaving 1/3 to prefer regular. Multiply 2,400 by 1/3, which is the same as dividing 2,400 by 3, to get 800 as the answer.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

84. At United Airlines, Pete Roy worked 8 3/4 hours on Monday, 4 1/2 hours on Tuesday, 9 1/4 hours on Wednesday, 10 1/2 hours on Thursday, and 7 hours on Friday. How many total hours did Pete work during the week?

$$8\frac{3}{4} + 4\frac{2}{4} + 9\frac{1}{4} + 10\frac{2}{4} + 7 = 38\frac{8}{4} = 40 \text{ hours}$$

Feedback: Covert all the denominators into common values and add the mixed fractions to get 38 8/4. 8/4 equals 2, so add that to 38 to get a total answer of 40.

85.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-02 (4) Add and subtract mixed numbers with the same or different denominators.
Topic: LU 02-02 Adding and Subtracting Fractions

The Boston Red Sox announced that the price of their $50 bleacher seats will increase next year by 1/5. What will be the new ticket price?

$$\$50 \times 1\frac{1}{5} = \frac{\$50}{1} \times \frac{6}{5} = \frac{300}{5} = \$60$$

Feedback: Stating that the price will increase by 1/5 means that the next year's price will be 1 1/5 of this year's price. Multiply $50 by 1 1/5, or 6/5, and use canceling to get a final answer of $60. Check your answer by dividing the original price, $50, by 5 to get $10. Add that 1/5, or 10, back to the $50 to get $60.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual

86. Indicate type of fraction:
3 1/8

Mixed

Feedback: This fraction has both a whole number and a fraction. The fraction cannot be reduced further.

Blooms: Understand
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

87. Indicate type of fraction:
6/7

Proper

Feedback: This fraction does not have a whole number and has a numerator that is smaller than the denominator and cannot be reduced further.

Blooms: Understand
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

88. Indicate type of fraction:
12/11

Improper
Feedback: This fraction does not have a whole number but does have a numerator that is larger than the denominator and can be reduced further by dividing the numerator by the denominator equaling 1 and 1/11. All improper fractions can be reduced to a whole number or a mixed fraction unless otherwise stated.

Blooms: Understand
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

89. Indicate type of fraction: 5/6

Proper

Feedback: This fraction does not have a whole number and has a numerator that is smaller than the denominator and cannot be reduced further.

Blooms: Understand
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

90. Indicate type of fraction:
15/14

Improper

Feedback: This fraction does not have a whole number but does have a numerator that is larger than the denominator and can be reduced further by dividing the numerator by the denominator equaling 1 and 1/14. All improper fractions can be reduced to a whole number or a mixed fraction unless otherwise stated.

Blooms: Understand

Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

91. Indicate type of fraction:
12 9/10

Mixed

Feedback: This fraction has both a whole number and a fraction. The fraction cannot be reduced further.

Blooms: Understand
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (1) Recognize the three types of fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

92. Convert to a mixed number:
88/7

12 4/7

Feedback: 7 goes into 88 twelve times with 4 left over.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

93. Convert to a mixed number:
77/3

25 2/3

Feedback: 25 goes into 77 three times with 2 left over.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

94. Convert to an improper faction:
12 1/7

85/7

Feedback: 12 times 7 plus 1 equals 85. Show 85 over 7 as the final answer.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

95. A. Find greatest common divisor and B. Convert to lowest terms. For (A) use the step approach or the observation method;
90/320

A. 10 B. $\frac{9}{32}$

$$\frac{90 \div 10}{320 \div 10} = \frac{9}{32}$$

$$90\overline{)320}\ 3,\ 270,\ 50 \qquad 50\overline{)90}\ 1,\ 50,\ 40 \qquad 40\overline{)50}\ 1,\ 40,\ 10 \qquad 10\overline{)40}\ 4,\ 40$$

Feedback: Using the step approach, 10 is the greatest common divisor. Dividing both 90 and 320 by 10 equals 9/32 and cannot be reduced further.

Blooms: Apply
Difficulty: 3 Hard
Gradable: manual
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

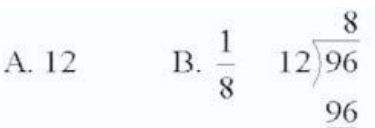
96. Convert to an improper fraction:
11 1/9

100/9

Feedback: 9 times 11 plus 1 equals 100. Show 100 over 9 as the final answer and leave as an improper fraction.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

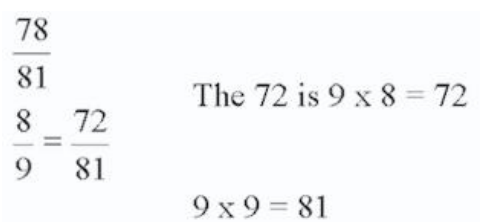
97. A. Find greatest common divisor and B. Convert to lowest terms. For (A) use the step approach or the observation method.
12/96



Feedback: Using the step approach, 12 is the greatest common divisor. Dividing 12/96 by 12 equals 1/8, which cannot be reduced further.

Blooms: Apply
Difficulty: 3 Hard
Gradable: manual
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

98. 8/9 = 72/?



Feedback: Divide the numerator 72 by the other numerator, 8; this equals 9. Multiply the denominator 9 by 9 to get the missing denominator of 81.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

99. 3/4 = 36/?

36/48

Feedback: Divide the numerator 36 by the other numerator, 3, to get 12. Multiply the denominator 4 by 12 to get the missing denominator 48.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

100. Add (reduce to lowest terms):
4/15 + 1/15

1/3; 5/15 = 1/3

Feedback: Adding the fractions 4/15 and 1/15 equals 5/15. This can be reduced to 1/3.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-02 (1) Add like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

101. Add (reduce to lowest terms):
2/7 + 3/14

1/2; 4/14 + 3/14 = 7/14 = 1/2
Feedback: Using 14 as the common denominator multiply 2/7 times 2 to get 4/14. Add this to 3/14 to get a final answer of 7/14, which can be reduced to 1/2.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-02 (1) Add like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

102. Add (reduce to lowest terms):
3/7 + 1/21

10/21

Feedback: Multiply 3/7 by 3/3 to get to a common denominator fraction of 9/21. Add this to 1/21 to get a final answer of 10/21, which cannot be reduced further.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-02 (1) Add like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

103. Add (reduce to lowest terms):
4/7 + 13/14

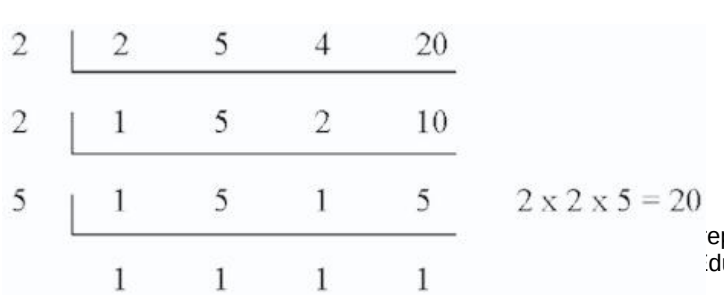
1 1/2

Feedback: Multiply 4/7 by 2/2 to get a common denominator fraction of 8/14. Add this to 13/14 to get 21/14, which can be converted to a mixed fraction of 1 7/14, or 1 1/2.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-02 (1) Add like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

104. Find LCD by using prime numbers (show work):
1/2 + 1/5 + 1/4 + 1/20

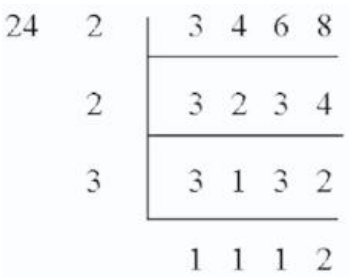
20



Feedback: Remember to list the denominator in a sorted row before dividing each number by 2 and carrying down those which have remainders.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-02 (2) Find the least common denominator by inspection and prime numbers.
Topic: LU 02-02 Adding and Subtracting Fractions

105. Find LCD by using prime numbers (show work):
1/3 + 1/4 + 1/6 + 1/8

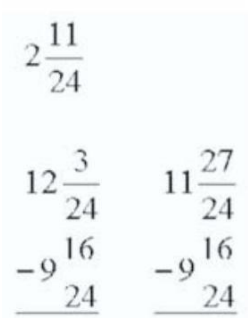


Feedback: Remember to list the denominator in a sorted row before dividing each number by 2 and carrying down those which have remainders.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-02 (2) Find the least common denominator by inspection and prime numbers.
Topic: LU 02-02 Adding and Subtracting Fractions

106. Subtract (reduce to lowest terms if necessary):

$$\begin{array}{r} 12\ 1/8 \\ -\ 9\ 2/3 \\ \hline \end{array}$$

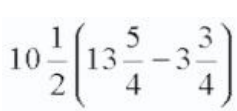


Feedback: First find the common denominator for 1/8 and 2/3, which is 24. After converting 1/8 to 3/24 and 2/3 to 16/24, adjust the mixed fraction 12 3/24 to 11 27/24 by moving one unit, 24/24, from the whole number to the fraction. Now subtract 9 16/24 from 11 27/24 to get 2 11/24, which cannot be reduced further.

Blooms: Apply
Difficulty: 3 Hard
Gradable: manual
Learning Objective: 02-02 (3) Subtract like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

107. Subtract (reduce to lowest terms if necessary):

$$\begin{array}{r} 14\ 1/4 \\ -3\ 3/4 \\ \hline \end{array}$$



Feedback: Before you can subtract you have to make 1/4 larger than 3/4, so move one unit [4/4] from the whole number to the fraction in the minuend [the larger fraction on top] to get 13 5/4. Now subtract the 3 3/4 to get 10 2/4, which can be reduced to 10 1/2.

Blooms: Apply
Difficulty: 3 Hard
Gradable: manual
Learning Objective: 02-02 (3) Subtract like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

108. Multiply (cancel as needed and express final answer as a mixed number):
12 3/8 × 7 1/6

$$88\frac{11}{16};\ 12\frac{3}{8}\times 7\frac{1}{6}=\frac{\overset{33}{\cancel{99}}}{8}\times\frac{43}{\underset{2}{\cancel{6}}}=\frac{1{,}419}{16}$$

Feedback: Convert both mixed fractions to improper fractions before using canceling to multiply. Then you'll get 33/8 times 43/2, which equals 1419/16 as an improper fraction.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

109. John Morse worked 8 1/2 hours on Monday, 2 3/4 hours on Tuesday, 7 1/2 hours on Wednesday, 7 1/4 hours on Thursday, and 8 hours on Friday. Calculate the total number of hours John worked for the week.

$$34 \text{ hours};\ 8\frac{2}{4}+2\frac{3}{4}+7\frac{2}{4}+7\frac{1}{4}+8$$

Feedback: Add the four fraction values to get the total time worked, first converting the 1/2's to fourths. Add the total time worked.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-02 (4) Add and subtract mixed numbers with the same or different denominators.
Topic: LU 02-02 Adding and Subtracting Fractions

110. Al, Ronda, and Rony enter into a partnership. Al owns 1/4 of the company, and Ronda owns 1/8. Calculate the part that is owned by Rony.

$$5/8 \text{ for Rony};\ \frac{2}{8}+\frac{1}{8}=\frac{3}{8};\ 1-\frac{3}{8}$$

Feedback: Convert 1/4 to eighths. Add the fractions together to get 3/8 and subtract that from 1 to get the remaining partnership of 5/8.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-02 (1) Add like and unlike fractions.
Topic: LU 02-02 Adding and Subtracting Fractions

111. Hilton Hotels announced a price decrease of 1/10 from its $290 weekend package. What is the new weekend package rate?

$$\$261\ \left(\$290 \times \frac{9}{10}\right)$$

Feedback: Since you are trying to find the new rate after the decrease, multiply $290 by 9/10.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

112. Bill Murray has 16 3/4 days of vacation per year. To date, he has taken 1 3/4 days in January, 4 2/3 days in February, and 2 1/6 days in March. How much more vacation time is Bill entitled to?

$$8\ 1/6 \text{ days remain } 1\frac{9}{12}+4\frac{8}{12}+2\frac{2}{12}=7\frac{19}{12}=8\frac{7}{12};\quad 16\frac{9}{12}-8\frac{7}{12}=8\frac{2}{12}$$

Feedback: After converting the fractions to have a common denominator, which is 12, add the values. This will get you an improper mixed fraction that has to be converted by moving 12/12 from the fraction to the whole number, changing the sum from 7 19/12 to 8 7/12. Take this value from the time allowed to get 8 2/12, or 8 1/6. Add the total time worked.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-02 (4) Add and subtract mixed numbers with the same or different denominators.
Topic: LU 02-02 Adding and Subtracting Fractions

113. A trip to New York from Boston will take 4 1/2 hours. Assuming we are two-thirds of the way there, how much longer will the trip take?

$$1\ ½ \text{ hours } \frac{1}{3}\times\frac{9}{2}=\frac{9}{6}=1\frac{3}{6}$$

Feedback: Since you are trying to find the amount of time left to travel, multiply 4 1/2 by 1/3 instead of 2/3 to get the answer.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

114. The price of a new car increased by 2/3 over the last five years. If the original price of the car was $6,000, what is the price today?

$$\$10{,}000\ 1\frac{2}{3}\times\$6{,}000=\frac{5}{3}\times\$6{,}000$$

Feedback: The new car price is the original price plus the increase, so multiply the $6,000 by 1 2/3, not just 2/3, to get the final new total price of $10,000.

Blooms: Apply
Difficulty: 3 Hard
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

115. Mel Corp. produces 18¼ widgets each hour. If the machine runs 16 hours, how many widgets will be produced?

$$292\left(\frac{73}{4}\text{ x }16\right)$$

Feedback: Convert the 18 1/4 into an improper fraction before multiplying by 16 to get a final answer of 292.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

116. Cans of soup are stocked in 1,250 sq. ft. of warehouse space. If each can requires 2 1/2 sq. ft. of space, how many cans of soup can be stored in this space?

$$500 \text{ cans } \left(1250 \div \frac{5}{2} = 1,250 \text{ x } \frac{2}{5} = \frac{2,500}{5}\right)$$

Feedback: Convert the 2 1/2 into an improper fraction before dividing the total square footage by 5/2. This is the same as multiplying 2/5.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

117. John Rone bought a home that is 5 1/2 times as expensive as the home his parents bought. If his parents paid $35,000 for theirs, what is the cost of John's home?

$$\$192,500 \left(\frac{11}{2} \times \$35,000\right)$$

Feedback: Convert the 5 1/2 into an improper fraction [11/2] and then multiply by the parents' home's price of $35,000.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

118. In a recent taste testing survey, it was found that 5/7 of all people surveyed preferred the taste of "A" chicken over "B" chicken. If 3,500 people were in the survey, how many favored "A"? What is the number of people who chose "B"?

A. $\frac{5}{7} \times 3,500 = 2,500$

B. $\frac{2}{7} \times 3,500 = 1,000$

Feedback: Multiply the number of people surveyed by 5/7 and then by 2/7 to get 2,500 and 1,000, respectively. This is a way to check the answer as the two answers should add back up to 3,500.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

119. Convert to an improper fraction:
16 3/8

131/8

Feedback: 16 x 8 = 128; 128 + 3 = 131/8

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

120. Indicate what type of fraction:
12 4/7

Mixed

Feedback: The mixed fraction contains a whole number and a proper fraction.

Blooms: Apply
Difficulty: 1 Easy
Gradable: manual
Learning Objective: 02-01 (2) Convert improper fractions to whole or mixed numbers and mixed numbers to improper fractions.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

121. Complete:

10 1/8 divided by 3/8

10 1/8/3/8 = 81/8/3/8 = 81/8 x 8/3 = 27

Feedback: Convert the mixed fraction to an improper fraction; invert divisor and multiply.

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

122. At Truman Middle School, 2/3 of the girls surveyed preferred playing capture the flag at gym. If 600 girls responded to the survey, how many preferred playing something else?
600 x 1/3 = 200

Feedback: Multiply the 600 respondents times 1/3 (i.e. divide 600 by 3).

Blooms: Apply
Difficulty: 3 Hard
Gradable: manual
Learning Objective: 02-03 (1) Multiply and divide proper fractions and mixed numbers.
Topic: LU 02-03 Multiplying and Dividing Fractions

123. Reduce the following to the lowest terms: 162/567

162/567 divided by 81/81 = 2/7

Feedback: Use the step approach to divide the smaller number (numerator) of the fraction into the larger number (denominator).

Blooms: Apply
Difficulty: 2 Medium
Gradable: manual
Learning Objective: 02-01 (3) Convert fractions to lowest and highest terms.
Topic: LU 02-01 Types of Fractions and Conversion Procedures

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