

## Chapter 2

### Accounting—The Language of Business

#### *Answers to Review Questions*

- 2.1** Shareholders' equity is sometimes called the residual because it is what is left over for the shareholders after the company pays off all of its debt. Rearranging the balance sheet equation, we have:

$$\text{Assets} - \text{Liabilities} = \text{Shareholders' equity} = \text{What is left over}$$

Of course, this is just an approximation because the balance sheet reports capital assets at cost, not fair value. In a true liquidation scenario, the assets would be sold for fair value and the proceeds used to pay off the debt. The remainder, the residual, would go to the shareholders.

- 2.2** The balance sheet balances by the addition of net income to and the subtraction of dividends from the opening retained earnings to determine the closing amount in retained earnings, which appears in shareholders' equity. This process is called articulation.
- 2.3** No, the matching principle does not mean that expenses have to equal revenues. If that were the case, net income would always be zero. The matching principle means that expenses incurred to generate revenues must be reported in the same period that the revenues are reported. Expenses incurred are matched to the revenues they generated. For example, a machine that cost \$40,000 with an estimated five-year useful life was acquired in 2008 to manufacture a product. The annual expense is the depreciation expense of  $\$40,000 \div 5 = \$8,000$ . The matching principle is telling us to apportion \$8,000 to depreciation expense every year for five years because the revenues generated by selling the product produced by using the machine will occur every year for five years.
- 2.4** Taxable income uses net income as a starting point. Adjustments—such as substituting capital cost allowance for depreciation expense—are made to arrive at taxable income. The government wants to be able to use tax policy to influence the economic behaviour of its citizens, including its corporate citizens. For this reason, taxable revenues and tax deductions are sometimes different from their accounting cousins.

- 2.5** “Executives would prefer to show lower earnings per share because the company’s tax bill will be reduced.” This statement is almost always false. Most senior executives receive a bonus or stock option incentives based on the company’s share price performance. Higher EPS usually results in higher share prices. So executives would prefer to show higher EPS to raise the share price.

Taxation is another issue. We have seen that net income, upon which EPS is based, is different than taxable income. Companies will want to report higher net incomes and then hire a good tax accountant to reduce the corporate tax bill.

## ***Solutions to Problems and Cases***

### **2.1. Assets**

Cash

Accounts receivable

Accumulated depreciation – cars\*

Inventory

### **Liabilities**

Accounts payable

Income taxes payable

Bonds payable

### **Shareholders’ equity**

Common shares

Net income\*\*

Dividends\*\*

\* Accumulated depreciation is a contra-asset. It subtract from the Cars account.

\*\* Net income and dividends are part of retained earnings, which is a shareholders’ equity account.

## 2.2

	A Company	B Company	C Company	D Company	E Company
Sales	2,000,000	450,000	700,000	87,900	9,458,000
Cost of goods sold	1,050,000	300,000	500,000	90,900	4,500,000
Gross profit	950,000	150,000	200,000	(3,000)	4,958,000
Expenses	750,000	60,000	300,000	45,000	3,879,000
Net income	200,000	90,000	(100,000)	(48,000)	1,079,000

## 2.3

(a)

	A Company	B Company	C Company	D Company	E Company
Sales	850,000	775,000	500,000	350,000	7,000,000
Cost of goods sold	500,000	300,000	300,000	125,000	3,500,000
Gross profit	350,000	475,000	200,000	225,000	3,500,000
<b>Expenses:</b>					
Selling expenses	85,000	150,000	50,000	70,000	1,500,000
Administrative expenses	125,000	200,000	80,000	60,000	800,000
Depreciation expense	45,000	50,000	40,000	60,000	400,000
Total expenses	255,000	400,000	170,000	190,000	2,700,000
EBIT	95,000	75,000	30,000	35,000	800,000
Interest expense	10,000	25,000	20,000	50,000	100,000
EBT	85,000	50,000	10,000	(15,000)	700,000
Income tax expense	34,000	20,000	4,000	(6,000)	280,000
Net income	51,000	30,000	6,000	(9,000)	420,000

(b) The tax rate is 40% in each case. For example, Company A's tax rate is  $\text{Income tax expense} / \text{EBT} = \$34,000 / 85,000 = 40\%$ .

(c) Company D must have been able to carry its taxable loss back to previous years to obtain a tax refund on tax paid in the past. Therefore, Company D has a negative tax rate this year.

## 2.4

(a)

	<u>2010</u>	<u>2009</u>	<u>2008</u>	2007
<b><u>Statement of Retained Earnings</u></b>				
Retained earnings, 1/1	400,000	355,000	300,000	
Net income (loss)	(75,000)	101,000	100,000	
Dividends paid	35,000	56,000	45,000	
Retained earnings, 12/31	<u>290,000</u>	<u>400,000</u>	<u>355,000</u>	<u>300,000</u>

(b)

	<u>2010</u>	<u>2009</u>	<u>2008</u>
<b><u>Condensed Balance Sheet</u></b>			
Current assets	150,000	300,000	125,000
Property, plant and equipment	700,000	800,000	625,000
Other assets	40,000	50,000	144,000
Total assets	<u>890,000</u>	<u>1,150,000</u>	<u>894,000</u>
Current liabilities	100,000	150,000	89,000
Long-term debt	300,000	400,000	250,000
Total liabilities	<u>400,000</u>	<u>550,000</u>	<u>339,000</u>
Common shares	200,000	200,000	200,000
Retained earnings	290,000	400,000	355,000
Total shareholders' equity	<u>490,000</u>	<u>600,000</u>	<u>555,000</u>
Total liabilities and shareholders' equity	<u>890,000</u>	<u>1,150,000</u>	<u>894,000</u>

## 2.5

**Jamery Goods Company:  
Statement of retained earnings  
for the year ended December 31, 2010**

Opening retained earnings	\$ 40,000
Add: net income	50,000
Deduct: dividends	<u>(10,000)</u>
Closing retained earnings	<u>\$ 80,000</u>

## 2.6

**Jamery Goods Company:  
Balance sheet  
as at December 31, 2010**

**Assets**

Cash		\$ 200,000
Accounts receivable		60,000
Inventory		30,000
Cars	\$75,000	
Accumulated depreciation – cars	<u>(30,000)</u>	<u>45,000</u>
Total assets		<u><u>\$ 335,000</u></u>

**Liabilities**

**Current liabilities**

Accounts payable	\$20,000	
Income taxes payable	<u>15,000</u>	
Total current liabilities		\$ 35,000

**Long-term liabilities**

Bonds payable, due 2016	<u>100,000</u>	
Total liabilities		135,000

**Shareholders' equity**

Common shares	120,000	
Retained earnings	<u>80,000</u>	
Total shareholders' equity		<u>200,000</u>
Total liabilities plus shareholders' equity		<u><u>\$ 335,000</u></u>

## 2.7

(a)

**Flex Motors  
Income Statement  
for the month ended March 31, 2010**

Motor revenues	325,000
----------------	---------

Cost of goods sold		135,000
Gross profit		<u>190,000</u>
Less: Selling expenses	45,000	
Depreciation expense	14,000	
Administrative expenses	25,000	84,000
		<u>          </u>
Net income		<u><u>106,000</u></u>

(b)

**Flex Motors**  
**Statement of Retained Earnings**  
**for the month ended March 31, 2010**

Opening retained earnings (March 1, 2010)	55,720
add: Net income	106,000
Less: Dividends declared	<u>(3,500)</u>
	<u><u>158,220</u></u>

(c)

**Flex Motors**  
**Balance Sheet**  
**as at March 31, 2010**

**Assets**

**Current assets**

Cash	16,450	
Accounts receivable	<u>17,000</u>	
Total current assets		33,450

Buildings	450,000	
Less: Accumulated depreciation – buildings	<u>(56,000)</u>	394,000
Total assets		<u><u>427,450</u></u>

**Current Liabilities**

Accounts payable	8,230	
Unearned royalty fees	5,000	
Interest payable	<u>6,000</u>	19,230

**Shareholders Equity**

Common shares	250,000	
Retained earnings	158,220	408,220
		<u>427,450</u>

**2.8**

**Hockey Consultants  
Income Statement  
for the year ended December 31, 2010**

**Revenues**

Consulting fees earned	550,000
------------------------	---------

**Expenses**

Hydro expense	35,000	
Insurance expense	18,000	
Office salaries expense	45,000	
Sales salaries expense	65,000	
Supplies expense	<u>8,000</u>	
Total expenses		<u>171,000</u>
Net income		<u>379,000</u>

**Hockey Consultants  
Statement of Shareholders' Equity  
for the year ended December 31, 2010**

Beginning retained earnings, January 1	123,000
Add: net income	379,000
Less: dividends	<u>(75,000)</u>
earnings, December 31	<u>427,000</u>

**Hockey Consultants**  
**Balance Sheet**  
**as at December 31, 2010**

<b>Assets</b>		<b>Liabilities</b>	
Cash	30,000	Accounts payable	12,000
Accounts receivable	50,000	Unearned consulting fees	<u>150,000</u>
Prepaid insurance	9,000	Total liabilities	162,000
Building, net	500,000		
Land	<u>200,000</u>	<b>Shareholders' Equity</b>	
		Common shares	200,000
		Retained earnings	<u>427,000</u>
		Total shareholders' equity	<u>627,000</u>
Total assets	<u>789,000</u>	Total liabilities and shareholders' equity	<u>789,000</u>



## 2.9

**MicroHard Company**  
**Balance Sheet**  
**December 31, 2010**

**Assets****Current assets**

Cash	\$30,000
Accounts receivable	50,000
Notes receivable (current portion)	5,000

Total current assets	85,000
----------------------	--------

**Long-term investments**

Notes receivable (40,000 - 5,000)	35,000
Land not used in operations	50,000
<b>Total long-term investments</b>	<b>85,000</b>

**Property, plant & equipment (P.P.E.)**

Land used in operations	150,000
Building	500,000
Accumulated depreciation – building	(125,000)
Building, net	375,000
Total P.P.E.	525,000

**Intangible assets**

Patents	207,000
---------	---------

<b>Total assets</b>	<b>902,000</b>
---------------------	----------------

**Current liabilities**

Accounts payable	\$ 12,000
Notes payable (current portion)	20,000

<b>Total current liabilities</b>	<b>32,000</b>
----------------------------------	---------------

**Long-term liabilities**

Bonds payable	327,000
Notes payable (300,000 - 20,000)	280,000

<b>Total long-term liabilities</b>	<b>607,000</b>
------------------------------------	----------------

<b>Total liabilities</b>	<b>639,000</b>
--------------------------	----------------

**Shareholders' equity**

Common shares	100,000
Retained earnings	163,000
Total shareholders' equity	263,000

<b>Total liabilities and shareholders' equity</b>	<b>902,000</b>
---	----------------

## 2.10

<b>Laurier Baseball Inc.</b>		
<b>Income Statement</b>		
<b>for the year ended December 31, 2010</b>		
Sales ( $\$7.00 \times 2,000,000$ )		\$ 14,000,000
Cost of goods sold ( $\$5.50 \times 2,000,000$ )		<u>11,000,000</u>
Gross profit		3,000,000
Selling expenses:		
Commissions ( $10\% \times 14,000,000$ )	\$1,400,000	
Administrative Expenses:		
Salaries	\$250,000	
Rent	500,000	
Depreciation	<u>270,000</u>	
		<u>1,020,000</u>
Total expenses		<u>2,420,000</u>
Net income		<u><u>\$580,000</u></u>

## 2.11

Healthy Movers Ltd. is the better and safer investment even though it lost money in 2010.

Joe expects the economy to improve, so Healthy will likely earn a profit in 2011.

On the other hand, Al's Co-Haul Co. has too much debt, all of which is due next year. It

is very unlikely that Al's can repay the debt without a major injection of cash into the business. With the existing high debt, it is unlikely the firm can obtain more bank loans.

The only recourse seems to be an equity offering, that is, to sell more shares into the market to pay down the debt. Selling more shares will increase the supply and likely drive the share price lower, making Al's an unwise investment for Joe.

## 2.12

(a) The account balance differences between 2009 and 2010 are:

<b>Medicine Hat ArtGlass Ltd.</b> <b>Balance Sheet</b> <b>as at December 31</b>			
	2010	2009	Difference
Cash	\$ 62,000	\$ 75,000	\$ (13,000)
Accounts receivable	15,000	18,500	(3,500)
Inventory	47,000	42,000	5,000
Land	50,000	50,000	-
Buildings	145,000	145,000	-
Accumulated depreciation - buildings	(110,000)	(105,000)	(5,000)
Furniture and equipment (F. & E.)	30,000	24,000	6,000
Accumulated depreciation - F. & E.	(12,000)	(11,000)	(1,000)
Trucks	36,000	50,000	(14,000)
Accumulated depreciation - Trucks	(22,000)	(26,000)	4,000
<b>Total assets</b>	<b>\$ 241,000</b>	<b>\$ 262,500</b>	
Accounts payable	\$ 49,000	\$ 35,000	14,000
Taxes payable	\$ 4,500	\$ 6,200	(1,700)
Bonds payable, 2018	75,000	50,000	25,000
Common shares	95,000	95,000	-
Retained earnings	17,500	76,300	
<b>Total liabilities and shareholders' equity</b>	<b>\$ 241,000</b>	<b>\$ 262,500</b>	

(b) The cash flow from operating activities for 2010 is:

<b>Medicine Hat ArtGlass Ltd.</b> <b>Cash Flow Statement</b> <b>for the year ended December 31, 2010</b>		
<b>Cash flows from operating activities</b>		
Net loss	(38,800)	
Add back: Depreciation	11,000	
Add back: Loss on sale of truck	3,000	
	<u>(24,800)</u>	
Add: decrease in accounts receivable	3,500	
Less: increase in inventory	(5,000)	
Add: increase in accounts payable	14,000	
Less: decrease in taxes payable	<u>(1,700)</u>	
Decrease in cash from operating activities		(14,000)

## 2.13

(a) The loss on the sale of the truck is calculated as follows:

Sold truck for:	\$ 2,000
Cost of truck	\$ 14,000
Accumulated depreciation	<u>(9,000)</u>
Net book value	<u>5,000</u>
Loss on sale of truck	<u><u>\$ (3,000)</u></u>

(b)

### Cash flows from investing activities

Proceeds from sale of truck	\$ 2,000	
Purchase of new F. & E.	<u>(6,000)</u>	
Decrease in cash from investing activities		\$ (4,000)

## 2.14

### Cash flows from financing activities

Issue of new bonds	\$ 25,000	
Dividends paid	<u>(20,000)</u>	
Increase in cash from financing activities		<u>\$ 5,000</u>

## 2.15

(a)

**Medicine Hat ArtGlass Ltd.**  
**Summary Cash Flow Statement**  
**for the year ended December 31, 2010**

Decrease in cash from operating activities	(14,000)
Decrease in cash from investing activities	(4,000)
Increase in cash from financing activities	<u>5,000</u>
Total increase in cash	<u>(13,000)</u>
Cash at January 1, 2010	<u>75,000</u>
Cash at December 31, 2010	<u><u>62,000</u></u>

(b) Yes, the summary cash flow statement works because the cash at December 31, 2010 agrees to the balance sheet cash amount. The change in cash from \$75,000 in 2009 to \$62,000 in 2010 was (\$13,000).

- (c) MHA lost cash on operating and investing activities and financed this and the dividend payment by issuing \$25,000 worth of new bonds.

## 2.16

First, calculate the difference in account balances between 2010 and 2009.

	2010	2009	Difference
<b>Current assets</b>			
Cash	\$ 25,560	\$ 28,000	\$ (2,440)
Accounts receivable	15,000	10,000	5,000
Inventory	45,980	60,000	(14,020)
Total current assets	86,540	98,000	
<b>Property, plant and equipment</b>			
Land	100,000	10,000	90,000
Buildings, net	250,000	260,000	(10,000)
Furniture, net	75,800	80,000	(4,200)
Equipment, net	54,600	42,000	12,600
Total, property, plant and equipment	480,400	392,000	
<b>Intangible assets</b>			
Patents	42,000	-	42,000
<b>Total assets</b>	<u>\$ 608,940</u>	<u>\$ 490,000</u>	
<b>Current liabilities</b>			
Accounts payable	\$ 22,600	\$ 30,000	(7,400)
<b>Long term liabilities</b>			
Bonds payable	120,000	120,000	-
Total liabilities	142,600	150,000	
<b>Shareholders' equity</b>			
Common shares	400,000	300,000	100,000
Retained earnings	66,340	40,000	
<b>Total shareholders' equity</b>	466,340	340,000	
<b>Total liabilities and shareholders' equity</b>	<u>\$ 608,940</u>	<u>\$ 490,000</u>	

Second, prepare the cash flow statement using the account balance differences and the information given in the question.

**The Moosonee Beer Company**  
**Cash Flow Statement**  
**for the year ended December 31, 2010**

**Cash flows from operating activities**

Net income	\$ 46,340
Add back: Depreciation (\$10,000 + 4,200 + 2,000)	16,200

	<u>62,540</u>	
Less: Increase in accounts receivable	(5,000)	
Add: decrease in inventory	14,020	
Less: decrease in accounts payable	<u>(7,400)</u>	
Increase in cash from operating activities		\$ 64,160
<b>Cash flows from investing activities</b>		
New land purchased	\$ (90,000)	
New equipment purchases (\$12,600 + 2,000)	(14,600)	
New patents purchased	<u>(42,000)</u>	
Decrease in cash from investing activities		(146,600)
<b>Cash flows from financing activities</b>		
New common shares issued	\$ 100,000	
Dividends paid	<u>(20,000)</u>	
Increase in cash from financing activities		<u>80,000</u>
Total decrease in cash		(2,440)
Cash at January 1, 2010		<u>28,000</u>
Cash at December 31, 2010		<u><u>\$ 25,560</u></u>

## 2.17

(a) Trucks:

Sold truck for:		\$ 12,000
Cost of truck	\$ 54,000	
Accumulated depreciation	<u>(45,000)</u>	
Net book value		<u>9,000</u>
Gain on sale of truck		<u><u>\$ 3,000</u></u>

Furniture:

Sold furniture for:		\$ 6,000
Cost of furniture	\$ 10,000	
Accumulated depreciation	<u>(4,000)</u>	
Net book value		<u>6,000</u>
Gain/loss on sale of furniture		<u><u>nil</u></u>

(b)

Purchase of trucks:		
Trucks, 12/31/2010		\$ 325,000
Trucks, 12/31/2009	\$ 254,000	

Less: Cost of truck sold	54,000	200,000
Cost of trucks purchased		<u>\$ 125,000</u>

(c) First, calculate the difference for the balance sheet accounts:

<b>Sudbury Wolverine Comics Ltd.</b> <b>Balance Sheet</b> <b>as at December 31</b>			
	2010	2009	Difference
Cash	\$ 135,000	\$ 63,500	\$ 71,500
Accounts receivable	210,000	120,000	90,000
Inventory	145,000	110,000	35,000
Land	120,000	120,000	-
Buildings	400,000	350,000	50,000
Accumulated depreciation - buildings	(125,000)	(110,000)	(15,000)
Furniture and equipment	110,000	120,000	(10,000)
Accumulated depreciation - F. & E.	(55,000)	(49,000)	(6,000)
Trucks	325,000	254,000	71,000
Accumulated depreciation - trucks	(100,000)	(105,000)	5,000
<b>Total assets</b>	<u>\$ 1,165,000</u>	<u>\$ 873,500</u>	
Accounts payable	\$ 100,000	\$ 87,000	13,000
Bonds payable, 2025	300,000	430,000	(130,000)
Common shares	250,000	250,000	-
Retained earnings	515,000	106,500	
<b>Total liabilities and shareholders' equity</b>	<u>\$ 1,165,000</u>	<u>\$ 873,500</u>	

Second, prepare the cash flow statement using the balance sheet account differences and the answers to part (a) and (b).

**Sudbury Wolverine Comics Ltd.**  
**Cash Flow Statement**  
**for the year ended December 31, 2010**

**Cash flows from operating activities**

Net income	\$ 421,000
Add back: Depreciation	65,000
Less: Gain on sale of truck	<u>(3,000)</u>
	483,000
Less: increase in accounts receivable	(90,000)
Less: increase in inventory	(35,000)
Add: increase in accounts payable	<u>13,000</u>

Increase in cash from operating activities	\$ 371,000
<b>Cash flows from investing activities</b>	
Proceeds from sale of furniture	6,000
Proceeds from sale of truck	12,000
Purchase of new truck	(125,000)
Purchase of new building	(50,000)
Decrease in cash from investing activities	(157,000)
<b>Cash flows from financing activities</b>	
Repayment of bonds	(130,000)
Dividends paid	(12,500)
Decrease in cash from financing activities	(142,500)
Total increase in cash	71,500
Cash at January 1, 2010	63,500
Cash at December 31, 2010	<u>\$ 135,000</u>

## 2.18

(a) The asset purchases are calculated as follows:

	<b>Buildings</b>	<b>Furniture</b>	<b>Equipment</b>	<b>Copyrights</b>
2010 balance	\$400,000	\$ 65,000	\$125,000	\$ 96,000
2009 balance	250,000	56,000	86,000	76,000
Less: 2010 depreciation and amortization	(10,000)	(7,500)	(14,000)	(4,000)
2009 adjusted balance	240,000	48,500	72,000	72,000
Purchases (2010 balance -2009 adjusted balance)	<u>\$160,000</u>	<u>\$ 16,500</u>	<u>\$ 53,000</u>	<u>\$ 24,000</u>

(b) The balance sheet account balance differences are:

<b>Trail Mixer Corp.</b>			
<b>Balance Sheet</b>			
	<u>2010</u>	<u>2009</u>	<u>Difference</u>
<b>Current assets</b>			
Cash	36,500	54,000	(17,500)
Accounts receivable	34,000	40,000	(6,000)
Inventory	50,000	40,000	10,000
Total current assets	<u>120,500</u>	<u>134,000</u>	
<b>Property, plant and equipment</b>			
Land	65,000	55,000	10,000
Buildings, net	400,000	250,000	150,000
Furniture, net	65,000	56,000	9,000
Equipment, net	125,000	86,000	39,000
Total, property, plant and equipment	<u>655,000</u>	<u>447,000</u>	



<b>Intangible assets</b>			
Copyrights	96,000	76,000	20,000
<b>Total assets</b>	<u>871,500</u>	<u>657,000</u>	
<b>Current liabilities</b>			
Accounts payable	40,000	60,000	(20,000)
<b>Long term liabilities</b>			
Bonds payable	300,000	185,000	115,000
<b>Total liabilities</b>	<u>340,000</u>	<u>245,000</u>	
<b>Shareholders' equity</b>			
Common shares	200,000	200,000	
Retained earnings	331,500	212,000	
<b>Total shareholders' equity</b>	<u>531,500</u>	<u>412,000</u>	
<b>Total liabilities and shareholders' equity</b>	<u>871,500</u>	<u>657,000</u>	

The cash flow statement is:

<b>Trail Mixer Corp.</b> <b>Cash Flow Statement</b> <b>for the year ended December 31, 2010</b>			
<b>Cash flows from operating activities</b>			
Net income	\$	200,000	
Add back: Depreciation (\$10,000 + 7,500 + 14,000)		31,500	
Amortization		<u>4,000</u>	
		235,500	
Add: decrease in accounts receivable		6,000	
Less: increase in inventory		(10,000)	
Less: decrease in accounts payable		<u>(20,000)</u>	
Increase in cash from operating activities			\$ 211,500
<b>Cash flows from investing activities</b>			
New land purchased	\$	(10,000)	
New building purchased (\$150,000 + 10,000)		(160,000)	
New furniture purchased (\$9,000 + 7,500)		(16,500)	
New equipment purchased (\$39,000 + 14,000)		(53,000)	
New copyrights purchased (\$20,000 + 4,000)		<u>(24,000)</u>	
Decrease in cash from investing activities			(263,500)
<b>Cash flows from financing activities</b>			
New bonds issued		115,000	
Dividends paid		<u>(80,500)</u>	
Increase in cash from financing activities			<u>34,500</u>
Total decrease in cash			(17,500)
Cash at January 1, 2010			54,000

Cash at December 31, 2010

\$ 36,500

## 2.19

Years	Beg. Net book value	Depreciation	End. Net book value	Beg. UCC	CCA @ 20%	End. UCC
1	1,500,000	150,000	1,350,000	1,500,000	150,000	1,350,000
2	1,350,000	150,000	1,200,000	1,350,000	270,000	1,080,000
3	1,200,000	150,000	1,050,000	1,080,000	216,000	864,000
4	1,050,000	150,000	900,000	864,000	172,800	691,200
5	900,000	150,000	750,000	691,200	138,240	552,960
6	750,000	150,000	600,000	552,960	110,592	442,368
7	600,000	150,000	450,000	442,368	88,474	353,894
8	450,000	150,000	300,000	353,894	70,779	283,115
9	300,000	150,000	150,000	283,115	56,623	226,492
10	150,000	150,000	-	226,492	45,298	181,194

## 2.20

(a)

	2006	2007	2008	2009	2010
Taxable income	\$ 52,000	\$ 75,000	\$ 98,000	\$121,000	\$144,000
Tax rate	30%	34%	45%	48%	28%
Tax payable	\$ 15,600	\$ 25,500	\$ 44,100	\$ 58,080	\$ 40,320

(b) Some causes of the difference in net income and taxable income might be:

- 1) CCA is higher than depreciation expense, thus lowering taxable income.
- 2) Some of the accounting income might not be taxable. Dividends from Canadian companies are not taxable.
- 3) Some expenses like warranty expenses and pension expenses might have already been reported in the accounting financial statements but are just now being allowed as deductible in the tax returns.

## 2.21

(a)

$$\text{Depreciation expense for 2010} = (500,000 - 10,000) / 10 = 49,000$$

(b)

$$\text{CCA for 2010} = 30\% \times 500,000 \times 1/2 = 75,000$$

(c)

$$\begin{aligned} \text{Tax saving for 2010} &= \text{CCA} \times \text{tax rate} \\ &= 75,000 \times 35\% = 26,250 \end{aligned}$$

## 2.22

(a)

$$\text{Depreciation expense for 2011} = (500,000 - 10,000) / 10 = 49,000$$

(b)

$$\text{CCA for 2011} = 30\% \times (500,000 - 75,000) = 127,500$$

(c)

$$\begin{aligned} \text{Tax saving for 2011} &= \text{CCA} \times \text{tax rate} \\ &= 127,500 \times 35\% = 44,625 \end{aligned}$$

## 2.23

(a)

Earnings before income taxes	\$ 5,025,000
Add back: depreciation expense	1,250,000

Less:

	UCC	CCA rate	CCA amount	
Buildings	3,000,000	4%	120,000	
Machines	5,600,000	20%	1,120,000	
Vehicles	800,000	30%	240,000	
Total CCA for 2010				(1,480,000)
Taxable income				<u><u>\$ 4,795,000</u></u>

(b)

Taxable income	\$ 4,795,000
Tax rate	35%
Taxes payable	<u>\$ 1,678,250</u>

## 2.24

- (a) You can look up the cash balance at the end of the year on last year's balance sheet. This amount is the opening cash balance in this year's cash flow statement. Then complete the cash flow statement using the president's forecasted cash flows to determine if there is sufficient cash to pay the dividend.
- (b) The cash flow statement, using the president's cash flow projections, and showing the dividend payment separately is as follows:

### Cash flow statement

Expected cash flows from operations	\$2,500,000
Expected cash outflows from investing	(1,400,000)
Expected cash inflows from financing	<u>500,000</u>
Net expected cash flows during the year	1,600,000
Cash needed to pay the dividend	<u>(2,000,000)</u>
Net cash flow including the dividend	<u>(400,000)</u>
<b>Opening cash balance</b>	<b><u>750,000*</u></b>
Required closing cash balance	<u><u>\$ 350,000</u></u>

\* Determined as follows:  $\$350,000 - (400,000) = \$750,000$ .

The opening cash balance must be \$750,000 to sustain a dividend of \$2 million and leave \$350,000 cash in the bank.

## ***Solutions to Additional Problems and Cases***

### **A-2.1**

**UPod Music  
Company  
Cash Flow Statement  
For the year ended  
December 31, 2010**

**Cash flows from operating activities**

Net income	\$	102,000	
Add (deduct) non-cash items:			
Depreciation expense (125,000 - 100,000 )		25,000	
Amortization expense - patents		7,000	
Decrease in accounts receivable (30,000 - 50,000)		20,000	
Increase in accounts payable (18,000 - 12,000)		6,000	
Increase in notes payable current portion (25,000 - 10,000)		15,000	
Gain on sale of land		(75,000)	
Increase in cash from operating activities			\$ 100,000

**Cash flows from investing activities**

Proceeds from the sale of land (125,000 - 50,000 + 75,000)	150,000	
Purchase of a new building (500,000 - 400,000)	(100,000)	
Purchase of new patents (45,000 - (20,000 - 7,000))	(32,000)	
Increase in cash from investing activities		18,000

**Cash flows from financing activities**

Increase in new long term bonds (269,000 - 200,000)	69,000	
Decrease in long term notes payable (165,000 - 278,000)	(113,000)	
Dividends paid	(56,000)	
Decrease in cash from financing activities		(100,000)

Total increase in cash	18,000	
Cash at January 1, 2010	12,000	
Cash at December 31, 2010	\$ 30,000	

**A.2-2****(a) Cash Flow Statement**

**Wilson Sports Limited**  
**Cash Flow Statement**  
**For the year ended December 31,**  
**2010**

**Cash flows from operating activities**

Net income	\$ 200,000	
Add (deduct) non-cash items:		
Depreciation expense - building (125,000 - 100,000 )	25,000	
Depreciation expense - machinery (120,000 - 105,000 )	15,000	
Amortization expense - copyrights (63,000 - 10,000 - 44,000 )	9,000	
Increase in accounts receivable (600,000 - 450,000)	(150,000)	
Increase in inventory (1,200,000 - 1,000,000)	(200,000)	
Decrease in prepaid insurance (50,000 - 62,000)	12,000	
Decrease in accounts payable (346,000 - 420,000)	(74,000)	
Increase in unearned revenues (50,000 - 20,000)	30,000	
Gain on sale of copyrights (50,000 - 10,000)	(40,000)	
Increase/(Decrease) in cash from operating activities		\$ (173,000)

**Cash flows from investing activities**

Proceeds from the sale of copyrights (50,000)	50,000	
Purchase of a new building (500,000 - 400,000)	(100,000)	
Purchase of new machinery (325,000 - 285,000)	(40,000)	
Increase/(Decrease) in cash from investing activities		(90,000)

**Cash flows from financing activities**

Decrease in bonds payable (1,200,000 - 1,000,000)	(200,000)	
Increase in bank loans payable (400,000 - 100,000)	300,000	
Increase in common shares (1,000,000 - 800,000)	200,000	
Dividends paid	(137,000)	
Increase in cash from financing activities		163,000

Total decrease in cash	(100,000)	
Cash at January 1, 2010	600,000	
Cash at December 31, 2010	500,000	

- (b) In 2010, Wilson used significant amounts of cash to buy another building, buy more machinery and inventory, and pay off some of its accounts payable. The company also used cash to repay some bonds payable and pay a dividend. Wilson financed these transactions by taking out more bank loans and selling more shares, as well as selling some copyrights.

### A-2.3

First, calculate the account balance differences on the balance sheet.

<b>Oshawa Air Cargo Ltd.</b> <b>Balance Sheet</b> <b>as at December 31</b>			
	2010	2009	Difference
Cash	\$ 50,000	\$ 40,000	\$ 10,000
Current assets	160,500	170,620	(10,120)
Land	340,000	400,000	(60,000)
Plant and equipment	600,000	510,000	90,000
Accumulated depreciation	(200,000)	(155,000)	NA
<b>Total assets</b>	<b>\$ 950,500</b>	<b>\$ 965,620</b>	
Current liabilities	\$ 95,000	\$ 105,000	(10,000)
Bonds payable, 2025	135,500	120,000	15,500
<b>Total liabilities</b>	<b>230,500</b>	<b>225,000</b>	
<b>Shareholders' equity</b>			
Common shares	500,000	500,000	-
Retained earnings	220,000	240,620	(20,620)
<b>Total shareholders' equity</b>	<b>720,000</b>	<b>740,620</b>	
<b>Total liabilities and shareholders' equity</b>	<b>\$ 950,500</b>	<b>\$ 965,620</b>	

Second, analyse the land sale. The land balance decreased by \$60,000 because of the sale.

The income statement shows a loss on sale of land of \$15,000. Therefore, the proceeds on the sale of land must have been  $\$60,000 - 15,000 = \$45,000$ .

Third, prepare the cash flow statement.

<b>Oshawa Air Cargo Ltd.</b> <b>Cash Flow Statement</b> <b>for the year ended December 31, 2010</b>		
<b>Cash flows from operating activities</b>		
Net income	134,000	
Add back: Depreciation expense	45,000	
Add back: Loss on sale of land	15,000	
	<u>194,000</u>	
Add: decrease in current assets	10,120	
Less: decrease in current liabilities	<u>(10,000)</u>	
Increase in cash from operating activities		194,120
<b>Cash flows from investing activities</b>		

Proceeds from sale of land (\$60,000 - 15,000)	45,000	
Purchase of new plant and equipment	<u>(90,000)</u>	
Decrease in cash from investing activities		(45,000)
<b>Cash flows from financing activities</b>		
New bonds issued	15,500	
Dividends paid	<u>(154,620)</u>	
Decrease in cash from financing activities		<u>(139,120)</u>
Total increase in cash		10,000
Cash at January 1, 2010		<u>40,000</u>
Cash at December 31, 2010		<u><u>50,000</u></u>