Finance Quiz

Do You Know the Basics?

This 10-question quiz isn't designed to measure your entire financial IQ, but it will give you a sense of the fundamentals you should learn to become a more effective manager. When you finish reading the guide, you'll have a chance to retake the quiz and compare your scores. If you don't know an answer, just mark it "don't know" rather than guessing. That will give you a clearer indication of your progress later.

The questions here were developed with the help of the Business Literacy Institute, in Los Angeles. A more comprehensive financial IQ test is available for purchase at www.business-literacy.com.

1. The income statement measures:

a. Profitability

b. Assets and liabilities

c. Cash

d. All of the above

2. A sale on credit ends up on the income statement as revenue and as what on the balance sheet?

a. Accounts receivable

b. Long-term assets

c. Short-term liability

d. Operating cash flow

3. What happens when a company is profitable but collection lags behind payments to vendors?

a. The company is OK because profits always become cash

b. The company stands a good chance of running out of money

c. The company needs to shift its focus to EBIT

d. The cash flow statement will show a negative bottom line

4. How is gross profit margin calculated?

a. COGS/revenue

b. Gross profit/net profit

c. Gross profit/revenue

d. Sales/gross profit

5. Which statement summarizes changes to parts of the balance sheet?

a. Income statement

b. Cash flow statement

c. Neither of the above

d. Both of the above

6. EBIT is an important measure in companies because:

a. It is free cash flow

b. It subtracts interest and taxes from net income to get a truer picture of the business

c. It indicates the profitability of a company's operations

d. It is the key measure of earnings before indirect costs and transfers

7. Operating expenses include all of the following except:

a. Advertising costs

b. Administrative salaries

c. Expensed research and development costs

d. Delivery of raw materials

8. Owners' equity in a company increases when the company:

a. Increases its assets with debt

b. Decreases its debt by paying off loans with company cash

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d. All of the above

9. A company has more cash today when:

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c. Profit increases

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10. Which of the following is not part of working capital?

a. Accounts receivable

b. Inventory

c. Property, plant, and equipment

d. All of the above are part of working capital

	2010	2009	Increase (Decrease)
Assets			
Cash and marketable securities	$ 652,500	486,500	166,000
Accounts receivable	555,000	512,000	43,000
Inventory	835,000	755,000	80,000
Prepaid expenses	123,000	98,000	25,000
Total current assets	2,165,500	1,851,500	314,000
Gross property, plant, and equipment	2,100,000	1,900,000	200,000
Less: accumulated depreciation	333,000	290,500	(42,500)
Net property, plant, and equipment	1,767,000	1,609,500	157,500
Total assets	$ 3,932,500	3,461,000	471,500
Liabilities and owners' equity			
Accounts payable	$ 450,000	430,000	20,000
Accrued expenses	98,000	77,000	21,000
Income tax payable	17,000	9,000	8,000
Short-term debt	435,000	500,000	(65,000)
Total current liabilities	1,000,000	1,016,000	(16,000)
Long-term debt	750,000	660,000	90,000
Total liabilities	1,750,000	1,676,000	74,000
Contributed capital	900,000	850,000	50,000
Retained earnings	1,282,500	935,000	347,500
Total owners' equity	2,182,500	1,785,000	397,500
Total liabilities and owners' equity	$ 3,932,500	$ 3,461,000	$ 471,500

Amalgamated Hat Rack income statement

	For the period ending December 31, 2010
Retail sales	$ 2,200,000
Corporate sales	1,000,000
Total sales revenue	3,200,000
Less: Cost of goods sold	1,600,000
Gross profit	1,600,000
Less: Operating expenses	800,000
Less: Depreciation expenses	42,500
Earnings before interest and taxes	757,500
Less: Interest expense	110,000
Earnings before income taxes	647,500
Less: Income taxes	300,000
Net income	$ 347,500

Amalgamated Hat Rack multiperiod income statement

	For the period ending December 31,		
	2010	2009	2008
Retail sales	$ 2,200,000	2,000,000	1,720,000
Corporate sales	1,000,000	1,000,000	1,100,000
Total sales revenue	3,200,000	3,000,000	2,820,000
Less: Cost of goods sold	1,600,000	1,550,000	1,400,000
Gross profit	1,600,000	1,450,000	1,420,000
Less: Operating expenses	800,000	810,000	812,000
Less: Depreciation expenses	42,500	44,500	45,500
Earnings before interest and taxes	757,500	595,500	562,500
Less: Interest expense	110,000	110,000	150,000
Earnings before income taxes	647,500	485,500	412,500
Less: Income taxes	300,000	194,200	165,000
Net income	$ 347,500	291,300	247,500

Net income	$ 347,500
Operating activities	
Accounts receivable	(43,000)
Inventory	(80,000)
Prepaid expenses	(25,000)
Accounts payable	20,000
Accrued expenses	21,000
Income tax payable	8,000
Depreciation expense	42,500
Total changes in operating assets and liabilities	(56,500)
Cash flow from operations	291,000
Investing activities	
Sale of property, plant, and equipment	267,000*
Capital expenditures	(467,000)
Cash flow from investing activities	(200,000)
Financing activities	
Short-term debt decrease	(65,000)
Long-term borrowing	90,000
Capital stock	50,000
Cash dividends to stockholders	—
Cash flow from financing activities	75,000
Increase in cash during year	$ 166,000

*Assumes sale price was at book value; the company had yet to start depreciating this asset.

	January	February	March
Sales	$20,000	$30,000	$45,000
COGS	12,000	18,000	27,000
Gross profit	8,000	12,000	18,000
Expenses	10,000	10,000	10,000
Net profit	($2,000)	$2,000	$8,000

	January	February	March
Sales	$50,000	$75,000	$95,000
COGS	35,000	52,500	66,500
Gross profit	15,000	22,500	28,500
Expenses	30,000	30,000	30,000
Net profit	($15,000)	($7,500)	($1,500)

US$ in thousands	Year 1	Year 2	Year 3	Year 4	Total
Financial benefit (revenue or cost savings)					
Revenue	–	500	1,000	1,500	3,000
(Lost revenue)	(50)	(100)	(100)	(100)	(350)
Cost savings	–	100	120	130	350
Total benefit	(50)	500	1,020	1,530	3,000
Investments/capital expenditures:					
Hardware	600	–	100	–	700
Licenses	200	–	–	–	200
Development	500	–	–	100	600
Subtotal capital	1,300	–	100	100	1,500
Operating expenses:					
Headcount	25	25	25	25	100
Fabrication		55	90	155	300
Marketing		420	130	50	600
Subtotal operating	25	500	245	230	1,000
Total investments	1,325	500	345	330	2,500

Return on investment					**Total return = $500**
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Total**
Total cash flow	(1,375)	–	675	1,200	500
Discounted cash flow (Present value) Assumes 10% discount rate	(1,375)	–	557	902	84

	Budget Jan.	Actual Jan.	Variance
Coat rack revenues	$39,000	$38,725	($275)*
Cost of goods sold	19,500	19,200	300
Gross margin	19,500	19,525	25
Marketing expense	8,500	10,100	(1,600)
Administrative expense	4,750	4,320	430
Total operating expense	13,250	14,420	(1,170)
Operating profit (EBIT)	$6,250	$5,105	($1,145)

*All parentheses indicate unfavorable variances.

Source: HMM Finance

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How Much Have You Learned?

Now it’s time to retake the finance quiz that appeared in the first part of this guide. It will give you an indication of what you’ve learned and what you might need to study up on. The answers follow.

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Answers to the Finance Quiz

1. a. Profitability is measured by the income statement. Assets and liabilities are measured by the balance sheet, cash by the cash flow statement.

2. a. A sale on credit means that the customer owes you for the amount of the purchase. That debt is an asset, and it appears under accounts receivable on the balance sheet.

3. b. If you're not collecting receivables as fast as you are paying vendors, you will need more and more working capital as the company grows—and if you can't find it, you will run out of money. EBIT is just another measure of profitability, which doesn't determine cash flow. And the cash flow statement's bottom line depends on many factors, not just receivables and payables.

4. c. Gross profit is revenue minus COGS (cost of goods sold). Gross profit margin shows gross profit as a percentage of revenue, so just divide gross profit by revenue and convert to a percent.

5. d. On the income statement, net profit adds to the retained earnings line on the balance sheet after dividends are paid. On the cash flow statement, the line items reflect cash-related differences between two balance sheets. Both statements thus summarize changes to the balance sheet.

6. c. EBIT, or operating profit, shows a company's profitability without regard to how the company is financed (which affects interest expense) or the taxes it may owe. EBIT is not free cash flow. And it actually adds back in interest and taxes to get that picture of operating profitability. EBIT does not stand for earnings before indirect costs and transfers.

7. d. Delivery of raw materials is part of COGS (cost of goods sold), not operating expenses. Advertising, administrative, and expensed research and development costs are all operating expenses.

8. c. One element of owners' equity is retained earnings, meaning profits not distributed to shareholders as dividends. Increasing profits helps to build owners' equity through the retained earnings line. Using cash to pay debt or increasing debt and adding assets with that debt does not change equity.

9. a. It isn't until the customer actually pays its bill that a company's cash increases. Accounts receivable indicates future cash flows, not current ones. Neither profit nor retained earnings affects how soon a company gets its cash.

10. c. Working capital is current assets minus current liabilities. Property, plant, and equipment is not a current asset; rather, it represents long-term investments in the business.