CONCEPT: RATIOS – RETURN ON EQUITY (ROE) – DUPONT MODEL

- The ***Return on Equity (ROE)*** measures the income a company earns compared to its level of stockholders' equity.
  - ☐ ROE is a common _____________ ratio
  - ☐ Investors want to make the most return from their investment!
  - ☐ We can break up the ROE using three other ratios; this gives us more information about how ROE was derived

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Average Common Equity}}$$

or

$$ROE = \text{Profit Margin} * \text{Total Asset Turnover} * \text{Equity Multiplier} =$$

$$ROE = \frac{\text{Net Income}}{\text{Net Sales}} * \frac{\text{Net Sales}}{\text{Average Total Assets}} * \frac{\text{Average Total Assets}}{\text{Average Common Equity}}$$

Analysis: *Profit Margin* tells us how much net income we earn for each dollar of sales.
Total Asset Turnover tells us how many dollars of sales we earn per dollar of total assets owned.
Profit Margin x Total Asset Turnover = ______________________

The *Equity Multiplier* (also called the _____________ ratio) magnifies ROA based on the level of debt.

A company can increase its ROE by (1) increasing profit margin, (2) increasing total asset turnover, and (3) increasing the amount of debt used to finance assets (however, this last one makes the company ________)

Red Flag: A negative ROE occurs if the company had a net ___________

PRACTICE: XYZ Company had a profit margin of 8.8%, total asset turnover of 0.77, and an equity multiplier of 1.8. What is XYZ's Return on Equity using the DuPont Model?

a) 12.2%

b) 3.76%

c) 20.57%

d) 11.37%

PRACTICE: A company had a profit margin of 6.1%. The company's net sales were $3,600,000 and Cost of Goods Sold was $600,000. If total assets were $3,450,00 at the beginning of the year and $4,210,000 at the end of the year, and total equity was $2,500,000 at the beginning of the year and $3,100,000 at the end of the year, what is the company's return on equity using the DuPont model?

a) 7.8%
b) 8.8%
c) 5.2%
d) Not enough information

PRACTICE: A company with net sales of $820,000 and net income of $210,000, average total assets of $1,400,000 and average common equity of $940,000 is using the DuPont model for financial analysis? What is the company's ROE?

a) 22.3%
b) 87.2%
c) 15.0%
d) 58.5%