1. **Individual Assignment--**Order of Operations and Dependent and Independent Variables. **Complete** the following order of operations questions:

* McConnell & Brue text
* Ch. 7, study question 12 (p. 129)
* ***Key Question*** The following table shows nominal GDP
* and an appropriate price index for a group of selected years.
* Compute real GDP. Indicate in each calculation whether
* you are inflating or deflating the nominal GDP data.
* **Nominal GDP, Price Index Real GDP,**
* **Year Billions (1996** \_ **100) Billions**
* 1960 $ 527.4 22.19 $
* 1968 911.5 26.29 $
* 1978 2295.9 48.22 $
* 1988 4742.5 80.22 $
* 1998 8790.2 103.22 $
* Ch. 8, study questions 2 and 11 (p. 151)

***2) Key Question*** Suppose an economy’s real GDP is $30,000

in year 1 and $31,200 in year 2. What is the growth rate of

its real GDP? Assume that population is 100 in year 1 and

102 in year 2. What is the growth rate of GDP per capita?

***11) Key Question*** If the CPI was 110 last year and is 121 this

year, what is this year’s rate of inflation? What is the “rule

of 70”? How long would it take for the price level to double

if inflation persisted at (*a*) 2, (*b*) 5, and (*c*) 10 percent per

year?

* Ch. 20, study question 2 (pp. 370 – 371)

The price-elasticity coefficient *Ed* measures the degree of

elasticity or inelasticity of demand. The coefficient is found

by the formula

*Ed* \_

percentage change in quantity

demanded of X

percentage change in price of X

Economists use the averages of prices and quantities under

consideration as reference points in determining percentage

changes in price and quantity. If *Ed* is greater than 1,

demand is elastic. If *Ed* is less than 1, demand is inelastic.

Unit elasticity is the special case in which *Ed* equals 1.

* Ch. 22, study question 7 (pp. 411 – 412)
* ***Key Question*** A firm has fixed costs of $60 and variable
* costs as indicated in the table on the following page.
* Complete the table and check your calculations by referring
* to question 4 at the end of Chapter 23.
* *a.* Graph total fixed cost, total variable cost, and total cost.
* Explain how the law of diminishing returns influences
* the shapes of the variable-cost and total-cost curves.
* *b.* Graph AFC, AVC, ATC, and MC. Explain the derivation
* and shape of each of these four curves and their
* relationships to one another. Specifically, explain in
* nontechnical terms why the MC curve intersects both
* the AVC and the ATC curves at their minimum points.
* *c.* Explain how the location of each curve graphed in
* question 7b would be altered if (1) total fixed cost had
* been $100 rather than $60 and (2) total variable cost
* had been $10 less at each level of output.
  + Marshall, McManus, & Viele text
* Ch. 3, exercise E3.6 (p. 84)
* **ROI analysis using DuPont model.**
* *a.* Firm D has net income of $27,900, sales of $930,000, and average total
* assets of $465,000. Calculate the firm’s margin, turnover, and ROI.
* *b.* Firm E has net income of $75,000, sales of $1,250,000, and ROI of 15%.
* Calculate the firm’s turnover and average total assets.
* *c.* Firm F has ROI of 12.6%, average total assets of $1,730,159, and turnover
* of 1.4. Calculate the firm’s sales, margin, and net income.
* **Complete** the following dependent and independent variables question from the Horngren text:

Ch. 2, question 2B2 (p. 74)

2-B2 Basic CVP Exercises

Each problem is unrelated to the others.

1. Given: Selling price per unit, $20; total fixed expenses, $5,000; variable expenses per unit, $15.

Find break-even sales in units.

2. Given: Sales, $40,000; variable expenses, $30,000; fixed expenses, $7,500; net income, $2,500.

Find break-even sales in dollars.

3. Given: Selling price per unit, $30; total fixed expenses, $33,000; variable expenses per unit, $14.

Find total sales in units to achieve a profit of $7,000, assuming no change in selling price.

4. Given: Sales, $50,000; variable expenses, $20,000; fixed expenses, $20,000; net income,

$10,000. Assume no change in selling price; find net income if activity volume increases 10%.

5. Given: Selling price per unit, $40; total fixed expenses, $80,000; variable expenses per unit, $30.

Assume that variable expenses are reduced by 20% per unit, and the total fixed expenses are increased

by 10%. Find the sales in units to achieve a profit of $20,000, assuming no change in selling price.