

Economics 110-005  
 Homework for Chapter 9  
Late work will not be accepted.

1. Complete the following table using the facts that  $w = \$8$  and  $r = \$75$ .

L	K	X	TVC	TFC	TC	AVC	AFC	ATC	MC
0	10	0							
5	10	60							
10	10	140							
15	10	195							
20	10	240							
25	10	275							

2. You have the information shown in the accompanying table about a firm's costs. Complete the missing data.

Quantity	<i>TC</i>	<i>MC</i>	<i>ATC</i>	<i>AVC</i>
0	\$20			
1	?	\$20	?	?
2	?	10	?	?
3	?	16	?	?
4	?	20	?	?
5	?	24	?	?

3. Don owns a small concrete-mixing company. His fixed cost is the cost of the concrete-batching machinery and his mixer trucks. His variable cost is the cost of the sand, gravel, and other inputs for producing concrete; the gas and maintenance for the machinery and trucks; and his workers. He is trying to decide how many mixer trucks to purchase. He has estimated the costs shown in the accompanying table based on estimates of the number of orders his company will receive per week.

Quantity of trucks	<i>FC</i>	<i>VC</i>		
		20 orders	40 orders	60 orders
2	\$6,000	\$2,000	\$5,000	\$12,000
3	7,000	1,800	3,800	10,800
4	8,000	1,200	3,600	8,400

- a. For each level of fixed cost, calculate Don's total cost for producing 20, 40, and 60 orders per week.

b. If Don is producing 20 orders per week, how many trucks should he purchase and what will his average total cost be? Answer the same questions for 40 and 60 orders per week.

4. Fill in the blanks.

X (output)	TFC	TVC	TC	MC	AFC	AVC	ATC
1	\$100	\$50					
2				\$30			
3						\$40	
4			\$270				
5							\$70

5. Given below are some data on total revenue and total cost for a firm.

- A) Calculate the firm's marginal and average cost curves and graph them.
- B) Calculate the firm's marginal and average revenue curves and graph them on the same graph.
- C) How much output, if any, should this firm produce?
- D) How much profit does the firm earn?

Total Output	Total Revenue	Total Cost
1	\$10	9
2	18	17
3	24	26
4	28	36
5	30	47
6	30	59
7	28	72
8	24	86