



# Classes 2 and 3

## Exercises

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# Chapter 7 Exercise 2



- **a.** Fill in the blanks in the table below.
- **b.** Draw a graph that shows marginal cost, average variable cost, and average total cost, with cost on the vertical axis and quantity on the horizontal axis.

UNITS OF OUTPUT	FIXED COST	VARIABLE COST	TOTAL COST	MARGINAL COST	AVERAGE FIXED COST	AVERAGE VARIABLE COST	AVERAGE TOTAL COST
0			100				
1			125				
2			145				
3			157				
4			177				
5			202				
6			236				
7			270				
8			326				
9			398				
10			490				

# Chapter 7 Exercise 3



- A firm has a fixed production cost of \$5000 and a constant marginal cost of production of \$500 per unit produced.
- **a.** What is the firm's total cost function? Average cost?
- **b.** If the firm wanted to minimize the average total cost, would it choose to be very large or very small? Explain.

# Chapter 7 Exercise 4



- Suppose a firm must pay an annual tax, which is a fixed sum, independent of whether it produces any output.
- **a.** How does this tax affect the firm's fixed, marginal, and average costs?
- **b.** Now suppose the firm is charged a tax that is proportional to the number of items it produces. Again, how does this tax affect the firm's fixed, marginal, and average costs?