

*Economics 2030*  
*Problem Set 2*  
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1. When price  $>$  marginal cost with competitive firms, how can a firm increase its profit?
  - a. produce more
  - b. produce the same output; it already maximizes profit
  - c. produce less
  - d. lower its marginal cost
2. A competitive firm will be at an output that will maximize profit when
  - a. price  $<$  marginal cost
  - b. price = marginal cost
  - c. price  $>$  marginal cost
  - d. price = minimum AC
3. A firm should shut down if its
  - a. price covers its AFC
  - b.  $TVC > TR$
  - c.  $TVC < TR$
  - d.  $MR = MC$
4. Positive profit will cause entry into the industry, resulting in the following for supply \_\_, price \_\_, & profit \_\_
  - a. increase, increase, increase
  - b. increase, increase, decrease
  - c. increase, decrease, increase
  - d. increase, decrease, decrease
5. When the price of apples rises, if apples are a normal good
  - a. the substitution effect is to buy more apples
  - b. the income effect is to buy more apples
  - c. the substitution effect is to buy fewer apples
  - d. none of the above
6. If Bud is a consumer who behaves randomly,
  - a. the substitution effect is the same as for a rational consumer
  - b. on average Bud is in the middle of his budget constraint
  - c. the income effect for Bud is similar to that for a random consumer
  - d. all of the above
7. The marginal benefit from 1 more Coke for Cassie is \$5, & the marginal benefit from 1 more Pepsi is \$7.  $P_{\text{Coke}} = \$1.5$ , &  $P_{\text{Pepsi}} = \$1.75$ . Given she already spends all of her income, Cassie's total benefit from consumption will increase if she consumes
  - a. more Coke & Pepsi
  - b. more Coke & less Pepsi
  - c. more Pepsi & less Coke
  - d. less Pepsi & Coke

8. Producer surplus
- exceeds profit
  - is less than profit
  - equals profit
  - is less than or equal to profit
9. For a firm, producer surplus is
- TR minus TC
  - TR minus TFC
  - TR minus TVC
  - TC minus TFC
10. If the profit-maximizing  $q = 80$ ,  $P = \$7$ , &  $AC = \$5.5$  when  $q = 80$
- $\pi = \$560$
  - $\pi = \$440$
  - $\pi = \$120$
  - none of the above
11. Economic profit
- counts all opportunity costs as part of TC
  - tends to be more than accounting profit
  - is usually positive in the long run in competitive markets
  - all of the above
12. The marginal product of labor ( $MP_L$ )
- decreases initially & then increases
  - equals  $\Delta TR / \Delta q$
  - equals  $\Delta q / \Delta L$
  - is always decreasing
13. The marginal cost of production (MC) is:
- the difference between fixed cost and variable cost
  - the change in total variable cost as an additional unit is produced
  - the average cost of producing one unit of the good
  - the change in total fixed cost as an additional unit is produced
14. When production is subject to diminishing marginal returns, marginal cost
- increases
  - decreases
  - stay constant
  - diminishing returns have nothing to do with MC
15. Which cost measures the extra cost of making one more good?
- total cost
  - total variable cost
  - marginal cost
  - total fixed cost

16. If the price elasticity of demand is greater than 1 in absolute value, then demand is
- elastic
  - unit elastic
  - inelastic
  - perfectly inelastic
17. If consumers did not respond to any price change, demand would be
- elastic
  - inelastic
  - perfectly elastic
  - perfectly inelastic
18. If  $E_{\text{cross}} < 0$  between X & Y, the goods are
- normal
  - complements
  - substitutes
  - inferior
19. Adding more substitutes to a market means the price elasticity of demand will
- fall
  - stay the same
  - increase
  - decrease briefly, then return to equilibrium
20. A supply schedule is given by the equation  $P = 100 + 4Q$ . If  $P = \$700$ ,  $E_P^S =$
- 28/15
  - 7/6
  - 4
  - 1/4

Answers are listed below.\*

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\* 1) a, 2) b, 3) b, 4) d, 5) c, 6) d, 7) c, 8) a, 9) c, 10) c, 11) a, 12) c, 13) b, 14) a, 15) c, 16) a, 17) d, 18) b, 19) c, 20) b.