Use the following to answer questions (1) through (3):

Moving to a small town, you get a job as a business analyst for ABC Coffee, which happens to operate the only café in town. The demand for ABC’s coffee is given as: \( Q = 100 - P \), where \( P \) is the price (in cents) charged by ABC for a cup of coffee and \( Q \) is the quantity sold per day (i.e., cups per day). Furthermore, suppose total fixed cost encountered by ABC is zero, and marginal cost (MC) equals average variable cost (AVC), with both constant at 20 cents (i.e., \( MC = AVC = 20 \) at all output levels). Lastly, given the demand for ABC’s coffee, its marginal revenue is given by the following equation: \( MR = 100 - 2Q \).

[1] Interested in maximizing ABC’s profit, you should recommend that ABC sell ___ cups of coffee per day.
A. 200  B. 80  C. 60  D. 40

[2] Interested in maximizing ABC’s profit, you should recommend that ABC price its coffee at ___ cents per cup.
A. 20  B. 40  C. 60  D. 100

[3] Given ABC is a monopolist, acting in a profit-maximizing way, the consumer surplus for coffee in this town will equal ___.
A. 200,000 cents (i.e., $2000)  B. 2,400 cents (i.e., $24)  C. 800 cents (i.e., $8)  D. None of the above

[4] Consider a monopoly which sets price equal to $100 and faces a price elasticity of market demand equal to 4. Accordingly, the firm’s marginal revenue equals:
A. $125  B. $100  C. $75  D. $60

[5] A price discriminating firm is currently selling its product to two groups of consumers, A and B. The marginal revenue received from consumer group A is currently $50, and marginal revenue received from consumer group B is currently $50. Accordingly, in order to increase profit, this firm should:
A. increase sales to group A and decrease sales to group B.
B. decrease sales to group A and increase sales to group B.
C. maintain sales at current levels.
D. none of the above.
Currently, a monopolist is selling 10 units of output at a price of $100 per unit. To sell 11 units, the monopolist must decrease price to $98 per unit. Accordingly, the marginal revenue of the 11th unit produced equals:

A. $1000  
B. $67  
C. $78  
D. None of the above

Use the following graph to answer questions (7) through (9):

[7] If this market is a monopoly, then consumer surplus equals:

A. $120,000  
B. $90,000  
C. $45,000  
D. None of the above

[8] If this market is a monopoly, then producer surplus will exceed $200,000.

A. True  
B. False

[9] If this market is purely competitive, then market welfare equals:

A. $375,000  
B. $250,000  
C. $175,000  
D. $125,000

[10] Imagine a firm sells its product to consumers in two states, California and Nevada. Wishing to price discriminate, this firm estimates the price elasticity of demand for its product in California is 2, while in Nevada the price elasticity is 4. Accordingly, the firm should charge a higher price to consumers in California.

A. True  
B. False