

Economics 1
Monopoly Practice Problems

1. Professor S has written a new book about the dietary habits of his goat. He is publishing it himself. It cost him \$5000 to do the research for the book and to write it. The marginal cost of each copy that he produces is \$5. He has no other costs. The demand curve for this book is a downward sloping curve that intersects the vertical axis at a price of \$20 and the horizontal axis at 1000 units. If Professor S is maximizing his profits,
 - (a) he will sell his book at a price equal to marginal cost.
 - (b) he will sell enough books so that the price elasticity of demand for his book is -1 .
 - (c) demand will be price inelastic at the price he chooses.
 - (d) demand will be price elastic at the price he chooses.
 - (e) he will choose the quantity at which price equals average cost.

2. A monopolist faces a demand curve described by $P = 200 - Q/2$. His total costs are $10Q$ where Q is output.
 - (a) What quantity should he sell to maximize his profits?
 - (b) What price should he charge to maximize his profits?
 - (c) What quantity should he produce if his goal is to maximize his total revenue?
 - (d) What price should he charge in order to maximize his total revenue?

3. Suppose that the monopolist of the previous problem has to pay a sales tax of \$20 per unit sold.
 - (a) What happens to his marginal cost?
 - (b) What quantity should he sell to maximize his profits?
 - (c) What price should he charge to maximize his profits? How much does the price paid by consumers increase as a result of the \$20 per-unit tax?

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ANSWER KEY

Question Number	Answer
1	D
2A)	$Q = 190$
2B)	$P = \$105$
2 C)	$Q = 200$
2D)	$P = \$100$
3A)	It increases from \$10 to \$30.
3B)	$Q = 170$
3C)	$P = \$115$
3D)	\$10