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?

Answers on Next Page

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