

**Quiz 78** .....

1. Which function models exponential growth?

- A)  $y = 4x^2$                       B)  $y = 3(4)^x$   
 C)  $y = 2(0.9)^x$                   D)  $y = 5(1/4)^x$

2. Which function models exponential decay?

- A)  $y = x^{-3}$                       B)  $y = 0.1(2)^x$   
 C)  $y = 0.3^x$                       D)  $y = 3(1.4)^x$

3.  $y = 4\left(\frac{1}{5}\right)^x$

What is the shape of the graph of the function above?

- A)       B)       C)       D) 

Solve. Use a calculator if necessary. Round your answers to the nearest hundredth.

4. A pound of beef costs \$6, and its price is increasing at a rate of 3% per year. How much will a pound of beef cost after 5 years?

5. A new car costs \$18,000 and depreciates (decreases in value) at a rate of 15% per year. How much will the car be worth after 10 years?