Name

# Exponential Function Decay (Discrete) - Equation to Scenario

**1** Which scenario describes this equation?

$$547 = 700 \cdot (1 - 0.04)^{(6)}$$

A. A whale population starts at 700. Each subsequent year it declines by 4%. After 6 years it

B. A whale population starts at 600. Each subsequent year it declines by 4%. After 7 years it

**2** Which scenario describes this equation?

$$514 = 600 \cdot (1 - 0.05)^{(3)}$$

A. A whale population starts at 300. Each subsequent year it declines by 5%. After 6 years it

B. A whale population starts at 600. Each subsequent year it declines by 5%. After 3 years it

**3** Which scenario describes this equation?

$$152 = 200 \cdot (1 - 0.03)^{(9)}$$

A. A bird population starts at 300. Each subsequent year it declines by 2%. After 9 years it has

B. A bird population starts at 200. Each subsequent year it declines by 3%. After 9 years it has

**4** Which scenario describes this equation?

$$460 = 500 \cdot (1 - 0.04)^{(2)}$$

A. A charitable endowment starts with $500. Each weekly it disburses 4% of its remaining funds.

B. A charitable endowment starts with $500. Each weekly it disburses 2% of its remaining funds.

**5** Which scenario describes this equation?

$$376 = 400 \cdot (1 - 0.02)^{(3)}$$

A. A whale population starts at 400. Each subsequent year it declines by 2%. After 3 years it

B. A whale population starts at 300. Each subsequent year it declines by 2%. After 4 years it

**6** Which scenario describes this equation?

$$323 = 500 \cdot (1 - 0.07)^{(6)}$$

A. A toxin starts at a concentration of 500mg/L. Each monthly dialysis reduces it by 7%. After 6 months

B. A toxin starts at a concentration of 600mg/L. Each monthly dialysis reduces it by 7%. After 5 months

**7** Which scenario describes this equation?

$$467 = 600 \cdot (1 - 0.08)^{(3)}$$

A. A bird population starts at 600. Each subsequent year it declines by 8%. After 3 years it has

B. A bird population starts at 300. Each subsequent year it declines by 8%. After 6 years it has

**8** Which scenario describes this equation?

$$503 = 900 \cdot (1 - 0.07)^{(8)}$$

A. A charitable endowment starts with $900. Each yearly it disburses 7% of its remaining funds. After

B. A charitable endowment starts with $800. Each yearly it disburses 7% of its remaining funds. After