Name

Exponential Function Solving - Decay (Discrete) - Equation to Time

1 What is the value of the time given this model of a decline of a whale population (yearly breeding cycle)?

$$733 = 900 \cdot (1 - 0.05)^{(t)}$$

A	$t = 4$ years	B	$t = 6$ years
C	$t = 2$ years	D	$t = 3$ years

2 What is the value of the time given this model of a decline of a toxin concentration (weekly dialysis)?

$$104 = 200 \cdot (1 - 0.07)^{(t)}$$

A	$t = 10$ weeks	B	$t = 9$ weeks
C	$t = 7$ weeks	D	$t = 8$ weeks

3 What is the value of the time given this model of a decline of a bird population (yearly breeding cycle)?

$$470 = 500 \cdot (1 - 0.02)^{(t)}$$

A	$t = 3$ years	B	$t = 4$ years
C	$t = 5$ years	D	$t = 2$ years

4 What is the value of the time given this model of a balance of a charitable endowment (monthly disbursements)?

$$283 = 600 \cdot (1 - 0.08)^{(t)}$$

A	$t = 11$ months	B	$t = 8$ months
C	$t = 10$ months	D	$t = 9$ months

5 What is the value of the time given this model of a decline of a toxin concentration (hourly dialysis)?

$$132 = 200 \cdot (1 - 0.05)^{(t)}$$

A	$t = 10$ hours	B	$t = 8$ hours
C	$t = 9$ hours	D	$t = 7$ hours

6 What is the value of the time given this model of a decline of a whale population (yearly breeding cycle)?

$$121 = 200 \cdot (1 - 0.08)^{(t)}$$

A	$t = 5$ years	B	$t = 6$ years
C	$t = 8$ years	D	$t = 7$ years

7 What is the value of the time given this model of a decline of a whale population (yearly breeding cycle)?

$$416 = 800 \cdot (1 - 0.07)^{(t)}$$

A	$t = 8$ years	B	$t = 11$ years
C	$t = 9$ years	D	$t = 7$ years

8 What is the value of the time given this model of a decline of a toxin concentration (hourly dialysis)?

$$429 = 600 \cdot (1 - 0.08)^{(t)}$$

A	$t = 3$ hours	B	$t = 5$ hours
C	$t = 4$ hours	D	$t = 6$ hours