



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

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

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

A $P = 420$

B $P = 376$

C $P = 265$

D $P = 355$

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

$$C = 200 \cdot (1 - 0.09)^{(3)}$$

A $C = 150$

B $C = 215$

C $C = 110$

D $C = 120$

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

$$C = 400 \cdot (1 - 0.09)^{(5)}$$

A $C = 290$

B $C = 180$

C $C = 275$

D $C = 249$

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

$$P = 800 \cdot (1 - 0.07)^{(4)}$$

A $P = 598$

B $P = 870$

C $P = 595$

D $P = 465$

5 What is the value of the final cash given this model of a balance of a charitable endowment (yearly disbursements)?

$$P = 400 \cdot (1 - 0.07)^{(2)}$$

A $P = 510$

B $P = 365$

C $P = 345$

D $P = 410$

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

$$P = 200 \cdot (1 - 0.03)^{(8)}$$

A $P = 170$

B $P = 125$

C $P = 190$

D $P = 156$

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

$$P = 400 \cdot (1 - 0.07)^{(6)}$$

A $P = 205$

B $P = 258$

C $P = 160$

D $P = 200$

8 What is the value of the final cash given this model of a balance of a charitable endowment (weekly disbursements)?

$$P = 600 \cdot (1 - 0.03)^{(9)}$$

A $P = 530$

B $P = 456$

C $P = 470$

D $P = 480$