Math 3 Advanced

KEY

Determine the math model (equation) for the contextual problem, then solve the problem. All problems assume that the first year is when t = 0.

1. $A(t) = 100(0.85)^t$
   $A(12) \approx 14.22\%$
   assume intitial amount is 100, because asked for answer in percentage

2. $A(t) = 100(0.92)^t$
   $A(96) \approx 0.03339\%$
   $1t = 15$ minutes
   assume intitial amount is 100, because asked for answer in percentage

3. $A(t) = 100(0.70)^t$
   $A(7) \approx 8.235\%$
   $1t = 4$ days
   assume intitial amount is 100, because asked for answer in percentage

4. $A(t) = 100(0.95)^t$
   $A(54) \approx 6.267\%$
   $1t = 20$ minutes
   assume intitial amount is 100, because asked for answer in percentage

5. $A(t) = 100(0.50)^t$
   $A(48) \approx 3.553$ x $10^{-13}\%$
   $1t = 30$ minutes
   assume intitial amount is 100, because asked for answer in percentage

6. $A(t) = 100(0.50)^t$
   $A(10) \approx 0.09766\%$
   $1t = 3$ days
   assume intitial amount is 100, because asked for answer in percentage

7. $A(t) = 100(0.50)^t$
   $A(8) \approx 0.3906\%$
   $1t = 1$ week
   assume intitial amount is 100, because asked for answer in percentage

8. $A(t) = 100(0.50)^t$
   $A(36) \approx 1.455$ x $10^{-9}\%$
   $1t = 2$ hours
   assume intitial amount is 100, because asked for answer in percentage

9. $A(t) = 24,000(0.88)^t$
   $A(12) \approx \$5176$

10. $A(t) = 40,000(0.86)^t$
    $A(10) \approx \$8852$