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. $A(t) = 32,000(1.08)^t$
   $A(15) \approx 101,509$

2. $A(t) = 1200(1.12)^t$
   $A(24) \approx 18,214$
   HINT: pay attention to units of t

3. $A(t) = 850(1.05)^t$
   $A(12) \approx 1526$

4. $A(t) = 150,000(1.07)^t$
   $A(20) \approx 580,452$

5. $A(t) = 50(1.15)^t$
   $A(36) \approx 7657$

6. $A(t) = 40,000(1.12)^t$
   $A(15) \approx 218,942$

7. $A(t) = 500(1.22)^t$
   $A(6) \approx 1648$

8. $A(t) = 2000(1.35)^t$
   $A(10) \approx 40,213$

9. $A(t) = 50(2)^t$
   $A(144) \approx 1.115 \text{ x } 10^{45}$
   Each unit of t is a 10-minute period

10. $A(t) = 200(2)^t$
    $A(336) \approx 2.800 \text{ x } 10^{103}$
    Each unit of t is a 30-minute period