

12. 88.53 mg.

13. a) $x(t) = 125e^{\frac{1}{2}\ln(0.88)t} + 55 = 125e^{-0.064t} + 55$

b) $t = 7.992 \text{ min}$

14. a) $x(t) = 2.3 \cdot 10^6 \cdot e^{\frac{1}{3}\ln(54/23)t}$

b) 69.886.217

15. 29.33°

16. a) $x(t) = 60 e^{\frac{1}{2}\ln(0.85)t} = 60e^{-0.081t}$

b) $x(3) = 47.02 \text{ mg}$