Exponential Growth and Decay Models - Answer Key

1. y-intercept = 400; $r = 1.05$; 5% growth
2. y-intercept = 750; $r = 0.8$; 20% decay
3. y-intercept = 120; $r = 1.25$; 25% growth
4. y-intercept = 900; $r = 0.6$; 40% decay
5. $y = f(x) = (2400)(1.1)^x$; at $x = 2$, $y = 2904$
6. $y = f(x) = (20000)(0.85)^x$; at $x = 2$, $y = 14450$
7. $y = f(x) = (80)(1.5)^x$; at $x = 2$, $y = 180$
8. $y = f(x) = (640)(0.75)^x$; at $x = 2$, $y = 360$
9. $y = f(x) = (100)(1.2)^x$; at $x = 2$, $y = 144$
10. $y = f(x) = (500)(0.8)^x$; at $x = 3$, $y = 256$
11. $y = f(x) = (64)(1.5)^x$; at $x = 2$, $y = 144$
12. $y = f(x) = (1000)(0.5)^x$; at $x = 4$, $y = \frac{125}{2}$