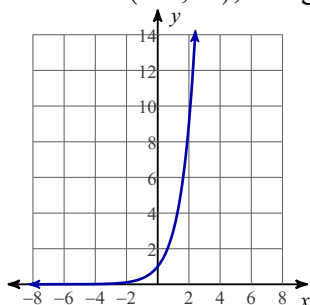
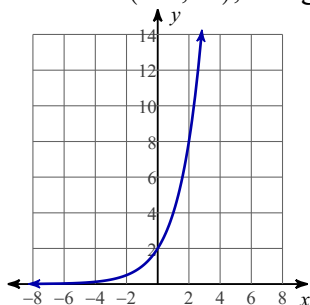


Answers to HW40: Exponential Growth

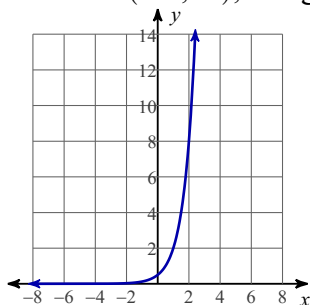
- 1) $S(d) = 4 \cdot 2^d$ 2) 5 days 3) 7 days 4) 32,768 scholars
 5) $N(d) = 3^d$ 6) 9 days 7) 531441 people 8) Answers will vary
 9) $P(t) = 1.32 \cdot 1.0276^t$
 10) 2005: $t = 5$; 2019: $t = 19$; 1970: $t = -30$; 1982: $t = -18$
 11) 1.39 million people 12) 1990
 13) Domain: $(-\infty, \infty)$; Range: $(0, \infty)$, HA: $y = 0$ 14) Domain: $(-\infty, \infty)$; Range: $(0, \infty)$, HA: $y = 0$



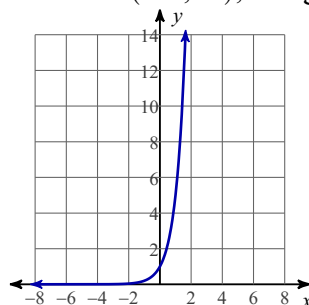
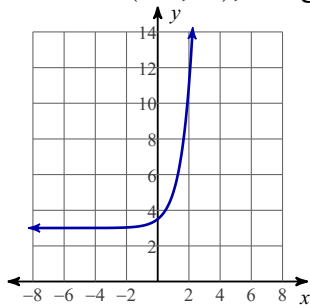
- 15) Domain: $(-\infty, \infty)$; Range: $(0, \infty)$, HA: $y = 0$



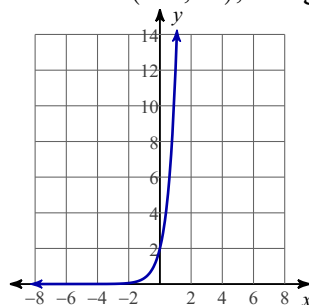
- 17) Domain: $(-\infty, \infty)$; Range: $(0, \infty)$, HA: $y = 0$



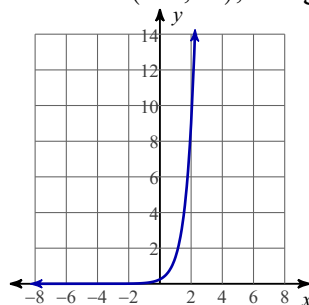
- 19) Domain: $(-\infty, \infty)$; Range: $(3, \infty)$, HA: $y = 3$



- 16) Domain: $(-\infty, \infty)$; Range: $(0, \infty)$, HA: $y = 0$



- 18) Domain: $(-\infty, \infty)$; Range: $(0, \infty)$, HA: $y = 0$



20) Domain: $(-\infty, \infty)$; Range: $(-7, \infty)$, HA: $y = -7$

