

SB quiz review answers

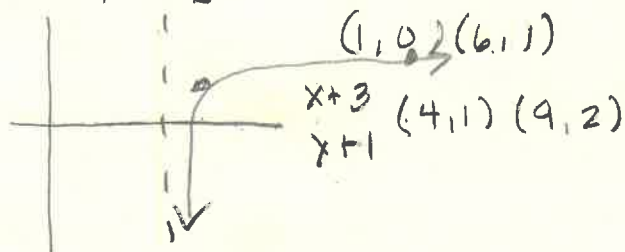
$$1) A = 875(1 - 0.086)^7$$

$$= 466.26$$

$$2) A = 875(1 + 0.042)^{20}$$

$$= 1992.34$$

$$3) y = \log_6(x-3) + 1$$



Asymptote $x=3$

D $(3, \infty)$

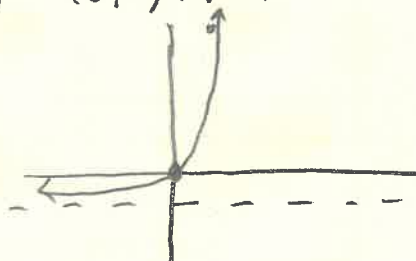
R $(-\infty, \infty)$

$$4) 10^{-2} = 0.01 \quad \log_6 \frac{1}{216} = -3$$

$$5) y = 5^x - 1$$

(0, 0) (1, 5)

$y-1$ (0, 0) (1, 4)



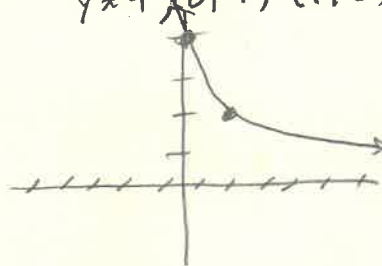
Asymptote $y = -1$

D $(-\infty, \infty)$ R $(-1, \infty)$

$$6) y = 4\left(\frac{1}{2}\right)^x$$

(0, 4) (1, 2)

$y \times 4$ (0, 1) (1, 2)



Asymptote $y = 0$

D $(-\infty, \infty)$ R $(0, \infty)$

$$7a) \log_2 9 = \frac{2}{3}$$

$$b) \log_{100} 10 = \frac{1}{2}$$

$$c) \log_5 \frac{1}{25} = -2$$

$$d) \log_9 1 = 0$$

$$e) \log_4 32 - \log_4 \frac{1}{2} = \log_4 16 = 2$$

$$8a) y = 15(1.07)^x$$

7% growth

$$b) y = 1285(0.62)^x$$

38% decay

$$c) y = 12(2.8)^x$$

180% growth

$$9a) \log\left(\frac{12\sqrt{x}}{3}\right) = \log(4\sqrt{x})$$

$$b) \log_2(x^7y^3)$$

$$c) \log_5 \frac{1}{25} = -2$$

$$10a) 2\log_c a - \log_c b - \log_c c$$

$$b) 4\log_3 3 = 4$$

$$11) \log_2(4x) = 3 \quad (\text{not on quiz})$$

$$2^3 = 4x$$

$$8 = 4x$$

$$2 = x$$