

$\log_6 \frac{1}{36} = -2$

(5)  $\log_{125} 5 = \frac{1}{3}$

(6)  $2^5 = 32$

(7)  $4^{-3} = \frac{1}{64}$

(8)  $\frac{\log \frac{1}{625}}{\log 5} = -4$

(9)  $\frac{\log 9}{\log 81} = \frac{1}{2} \text{ or } .5$

(10)  $3^4 = (5 + 2x)$   
 $81 = 5 + 2x$   
 $-5 \quad -5$   


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 $76 = 2x$   
 $x = 38$

(11)  $2^{-3} = x - 6$   
 $\frac{1}{8} = x - 6$   
 $x = \frac{49}{8} \text{ or } 6.125$

(12) Growth  
 $b = 2.5$

(13) Growth  
 $b = 4$

(14) compress  $\frac{1}{2}$   
 growth  
 up 1

(15) stretch 20  
 right 2  
 down 3

(16) down 7  
 left 4

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

(18) D:  $(-\infty, \infty)$   
 R:  $(-3, \infty)$

(19) D:  $(8, \infty)$   
 R:  $(-\infty, \infty)$