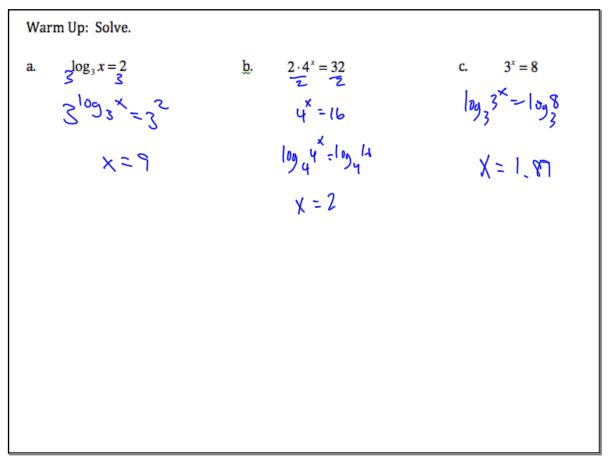
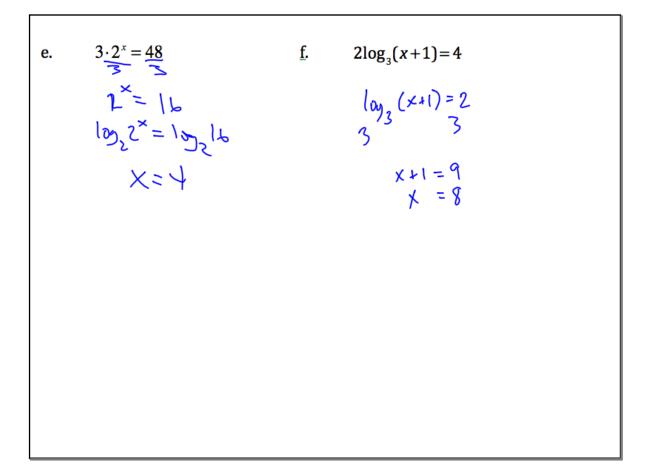
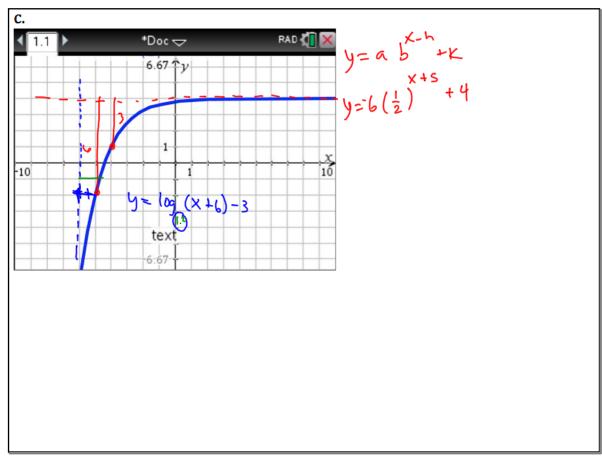
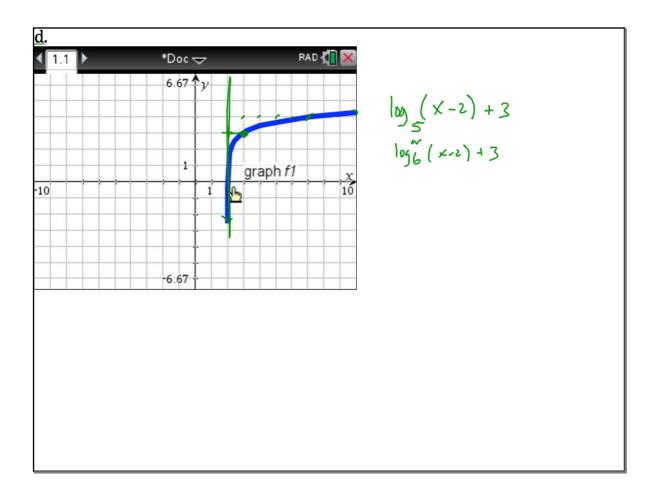
## log properties



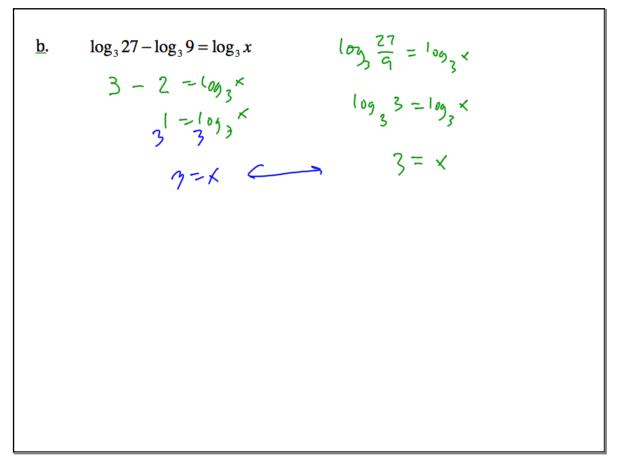


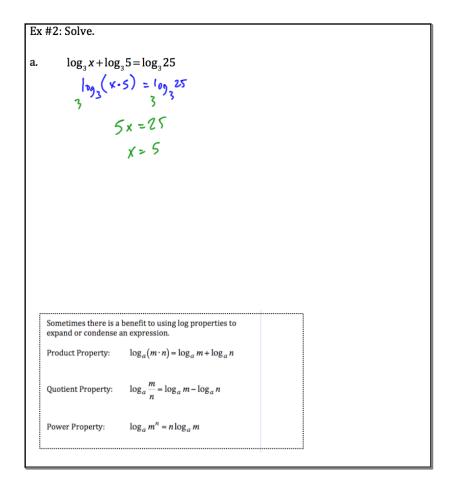




2. Algebraically determine the inverse of  $f(x) = 10^{x+5} - 8$  $y = 10^{x+5} - 8$   $x = 10^{y+5} - 8$   $x + 8 = 10^{y+5}$   $\log(x+8) = \log_{10}10^{y+5}$   $\log(x+8) = y + 5$   $\log(x+8) - 5 = 4$ 

EX #1: Solve.  
a. 
$$\log_2(4) + \log_2(8) = \log_2(x)$$
  
 $2 + 3 = (\log_2 x)$   
 $5 = (\log_2 x)$   
 $2 + 2 = x$   
 $\log_2(5, 10) = \log_2 x$   
 $\log_2(5, 10) = \log_2 x$   
 $2 = x$   
 $50 = x$ 





$$\underline{b} = \log_{5}(x+1) + \log_{5} 3 = \log_{5}(2x-7)$$

$$\int |0^{5} 5^{\left(\frac{x}{x+1}\right)} 3 - \frac{1}{5} \log_{5}(2x-7)$$

$$3x+3 = 2x-7$$

$$4 + 3x - 1$$

EX #3: Given 
$$\log_5 7 \approx 1.21$$
 and  $\log_5 3 \approx 0.68$  find:  
a.  $\log_5 21$ 
b.  $\log_5 \left(\frac{3}{7}\right)$ 
c.  $\log_5 9$ 
 $\log_5 5 (3 \cdot 7)$ 
 $\log_5 5^3 - \log_5 7$ 
 $\log_5 5^2$ 
 $\log_5 5^2$ 

