

Rewrite using the
Change of Base
formula:

$$\textcircled{1} \log_2 40$$

$$\textcircled{2} \log_{1.05}(600)$$

$$\textcircled{3} \log_{1/2}(9)$$

Solve using logarithms:

$$\textcircled{4} e^{4x} = 9$$

$$\textcircled{5} 3 + 2^x = 7$$

$$\textcircled{6} 9 \cdot 10^{x/4} = 300$$

$$\textcircled{7} 1 + 3e^{2x} = 100$$

$$\textcircled{8} 6 - 4^x = 1$$

Find the inverse function:

$$\textcircled{9} \quad y = 3 + 2e^x$$

$$\textcircled{10} \quad y = 600\left(\frac{1}{2}\right)^{x/5}$$

$$\textcircled{11} \quad y = 2 - \log(x-1)$$

$$\textcircled{12} \quad y = \frac{1}{5} \log_2(3x)$$

Write the end behavior
and Asymptote:

$$\textcircled{13} \quad y = 3 + 2^x$$

$$\textcircled{14} \quad y = -2 - 5^x$$

$$\textcircled{15} \quad y = 8 + 3^{-x}$$

$$\textcircled{16} \quad y = 4 - e^{-2x}$$

Write the domain and asymptote.

$$\textcircled{17} \quad y = \ln(x+7)$$

$$\textcircled{18} \quad y = \log(2x-3)$$

$$\textcircled{19} \quad y = \log_2\left(\frac{1}{2}x+5\right)$$

$$\textcircled{20} \quad y = \log(9-x)$$