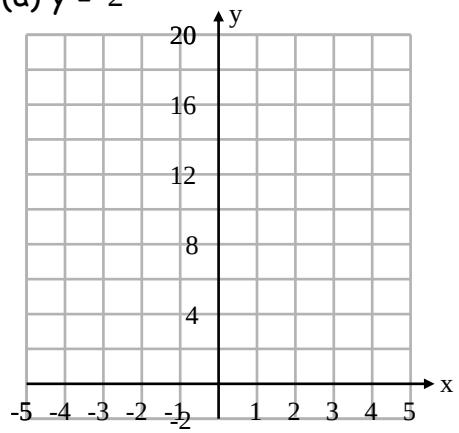
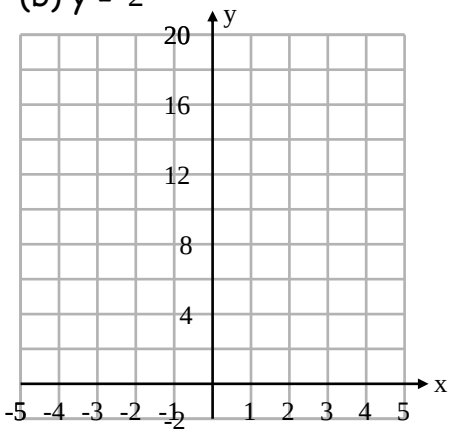
Exponential Graphs

1. For the following functions:
   - (a) Graph the function.
   - (b) Identify the domain and range of the function.
   - (c) Write the equation of any asymptotes.
   - (d) Determine the intercepts of the function.

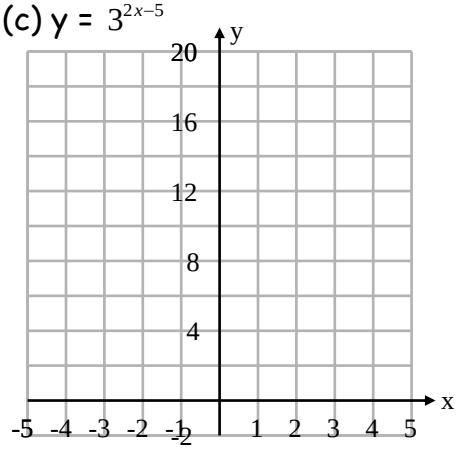
(a) $y = 2^{3(x-2)}$



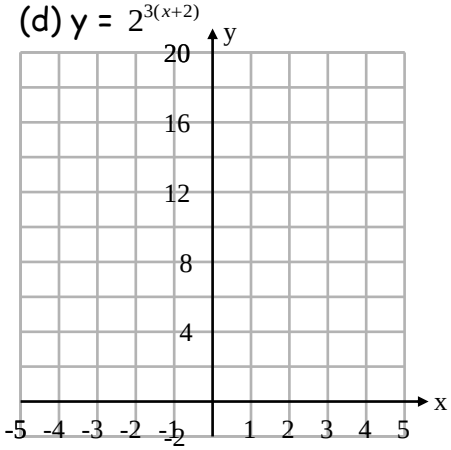
(b) $y = 2^{4(x-3)}$



(c) $y = 3^{2x-5}$



(d) $y = 2^{3(x+2)}$



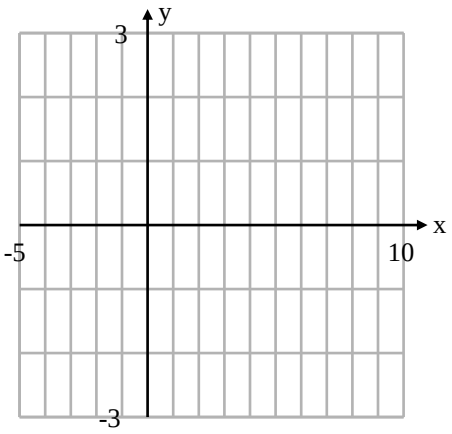
LOGARITHMIC GRAPHS

1. Write the equation of the inverse of each of the following exponential function.

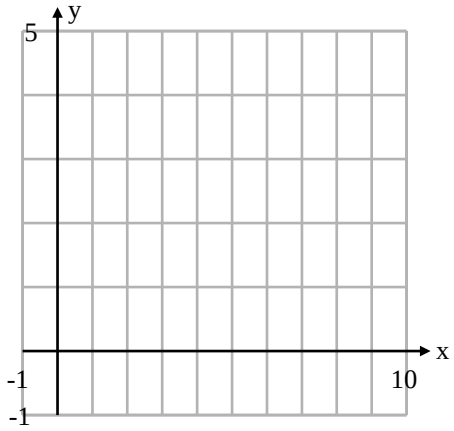
   (a) $f(x) = 7^x$ (b) $g(x) = \left(\frac{3}{2}\right)^x$

2. Write the equation of the inverse of the logarithmic function: $f(x) = \log_6 x$

3. For the list, sketch the graphs on the same grid.
   y= logx
   y=log2x
   y=log2(x+3)



4. Graph y = 4log3(x-2)
   a) Identify the domain and range of the function.
   b) Write the equations of any asymptotes.
   c) Determine the intercepts of the function.



5. Solve each equation for x, thus expressing x as a logarithmic function of y.

   (a) $y = 8.2 \times 1.03^x$ (b) $y = 64\left(\frac{1}{2}\right)^x$