

5.7 Practice

Date _____ Period _____

Describe what transformations will occur from the function below.

1) $f(x) = \left(\frac{1}{3}\right)^{x+1} - 2$

2) $f(x) = \left(\frac{1}{2}\right)^{x-2} - 2$

3) $f(x) = \left(\frac{1}{4}\right)^{x+1} - 2$

4) $f(x) = 3^{x+2} + 1$

5) $f(x) = 2^{x-2} - 2$

6) $f(x) = \left(\frac{1}{2}\right)^{x-1} + 1$

7) $f(x) = \left(\frac{1}{2}\right)^{x-1} + 2$

8) $f(x) = \left(\frac{1}{3}\right)^{x+2} - 1$

Given the function $f(x) = 2^x$ determine what the following would do to the graph.

9) $f(x-3)$

10) $f(x+1)$

11) $f(x) + 5$

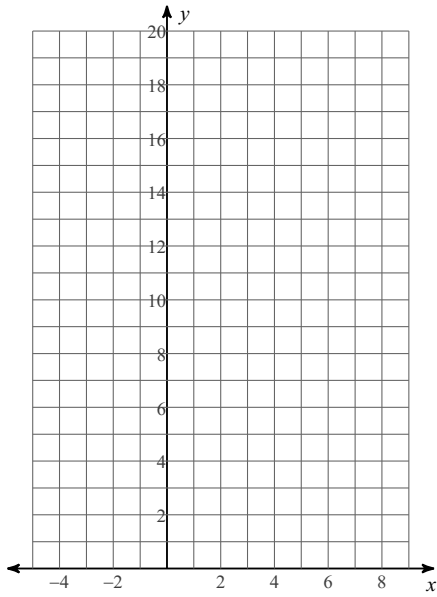
12) $f(x) - 6$

13) $-f(x)$

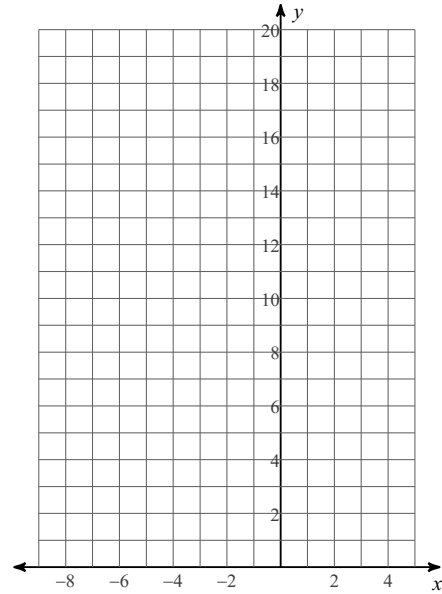
14) $f(x-4)$

Sketch the graph of each function.

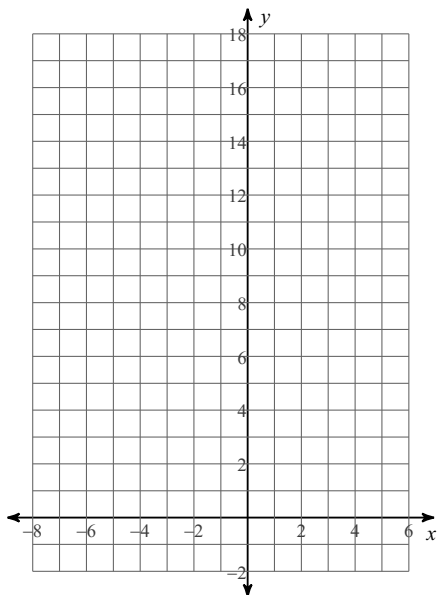
15) $f(x) = 2^{x-2} + 2$



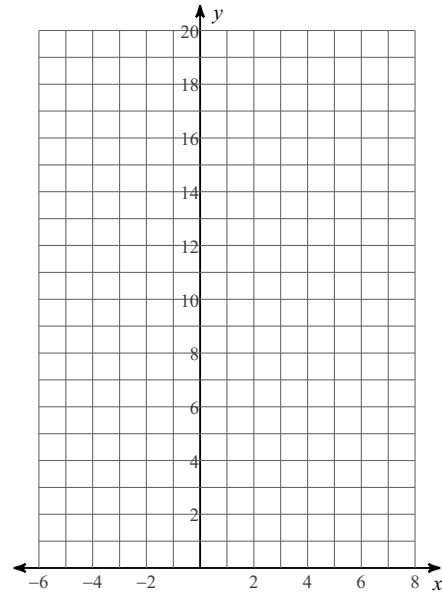
16) $f(x) = \left(\frac{1}{2}\right)^{x+2} + 1$



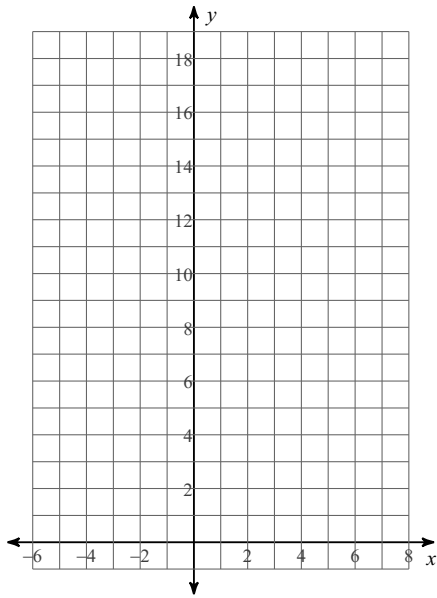
17) $f(x) = \left(\frac{1}{3}\right)^{x+1} - 2$



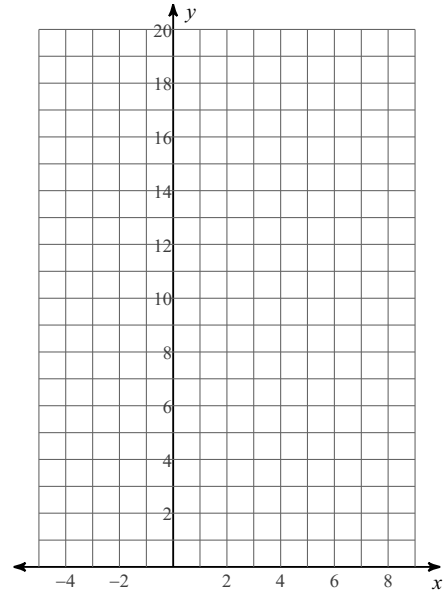
18) $f(x) = 3^{x-1} + 1$



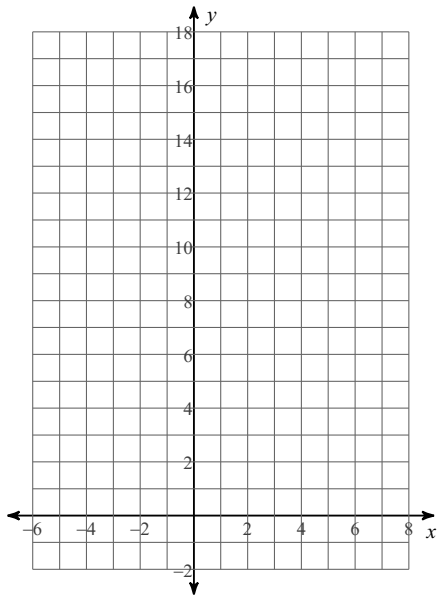
19) $f(x) = 3^{x-1} - 1$



20) $f(x) = \left(\frac{1}{4}\right)^{x-2} + 1$



21) $f(x) = \left(\frac{1}{4}\right)^{x-1} - 2$



22) $f(x) = 3^{x+2} - 1$

