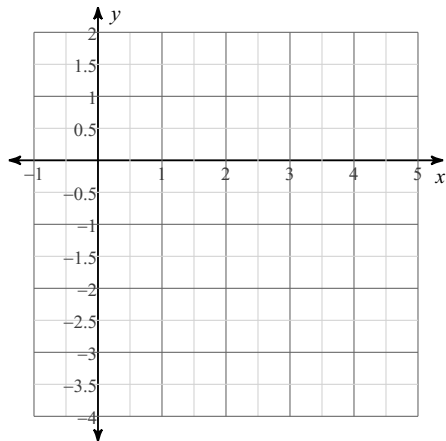


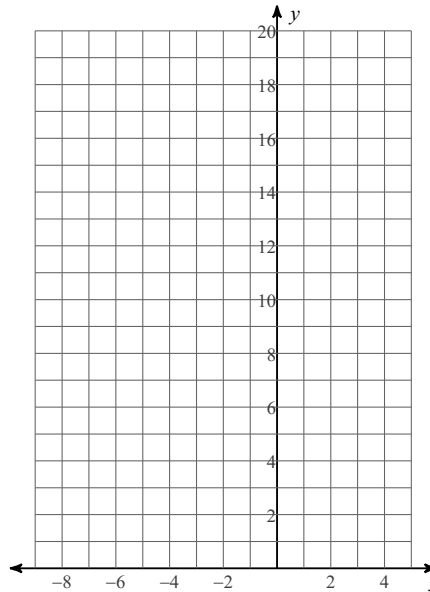
HW 11.1

SKETCH a graph of the following functions AND identify which family they belong to.

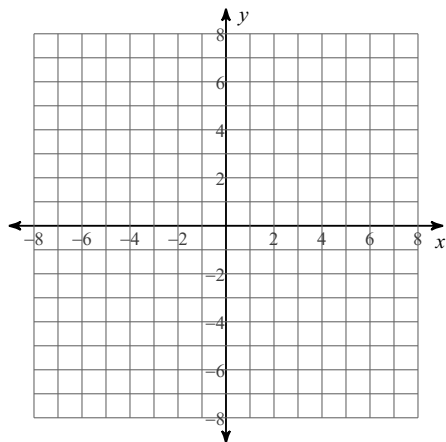
1)  $f(x) = (x - 1)^2 - 3$



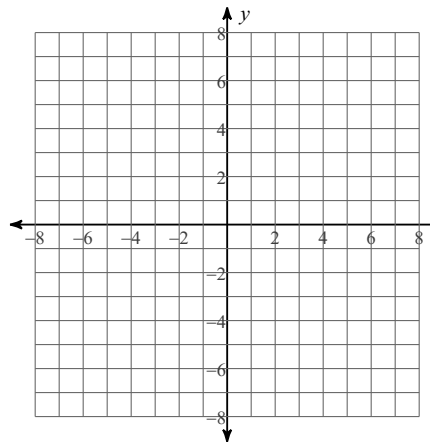
2)  $f(x) = 3^{x+2} + 2$



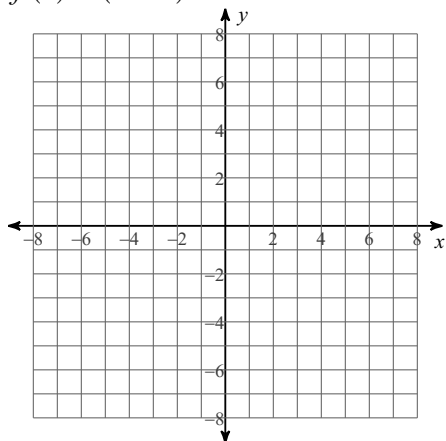
3)  $y = \sqrt{x + 6} - 1$



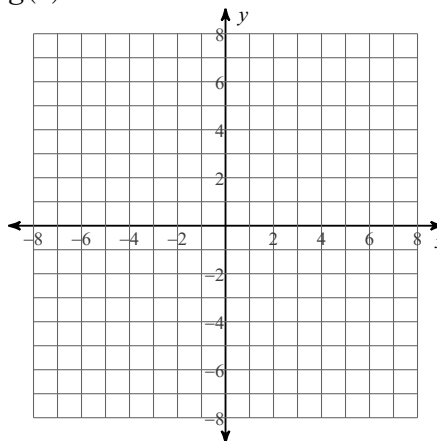
4)  $f(x) = -\frac{3}{x} + 1$



5)  $f(x) = (x + 2)^3 - 1$



6)  $g(x) = 3x - 2$



7) Which of the following does NOT represent a function?

- A) (3, 1) (2, 4) (0, 1) (1, 1) (5, -2) (-2, 5)
- B) (0, 2) (3, 4) (2, 1) (-2, 1) (3, 0) (1, 2)
- C) (-1, 3) (2, 5) (2, 1) (3, 1) (4, 2) (-2, 0)

8) Which of the following DOES represent a function?

- A) (-1, 1) (1, -1) (2, -1) (1, -2) (-2, -2)
- B) (8, 2) (3, 1) (2, 0) (0, 2) (1, 3)
- C) (5, 2) (2, 5) (3, 3) (3, 2) (0, 1) (1, 0)

9) Describe the difference between the graph of  $y = x^2$  and  $y = x^3$ .

10) Describe the difference between the graph of  $y = |x|$  and  $y = -|x|$ .