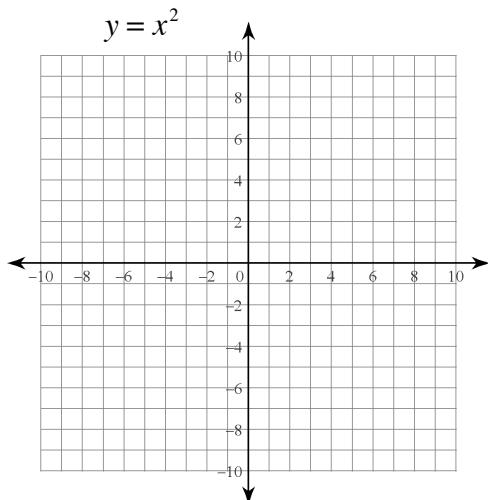
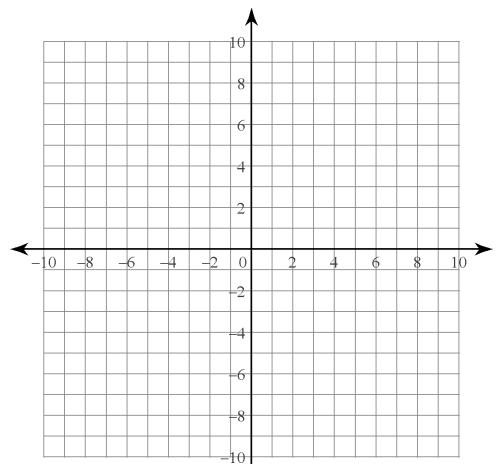


1.4 Transformations of Graphs

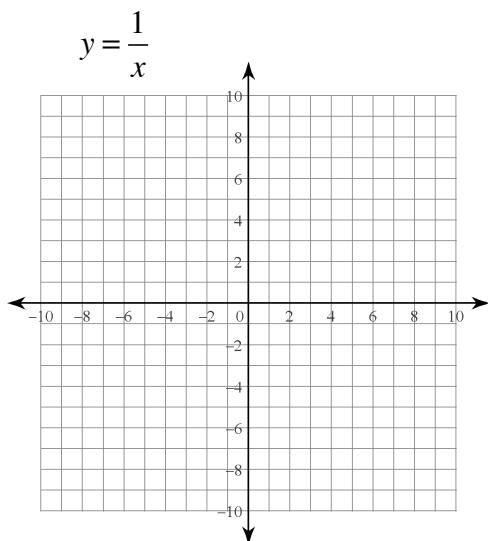
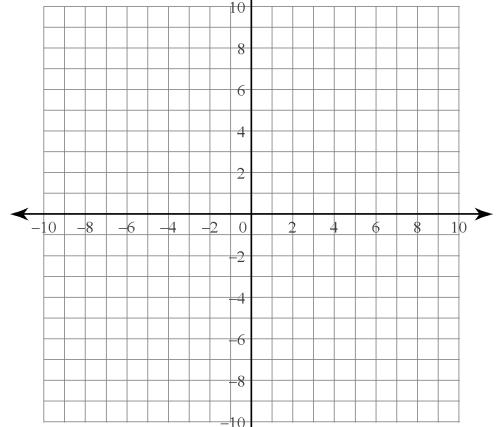
The “Mother Functions”



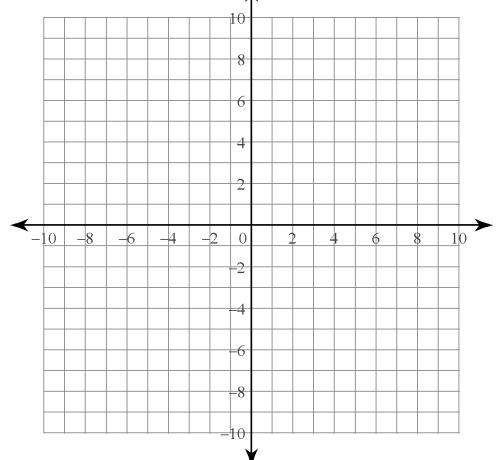
$$y = x^3$$



$$y = |x|$$



$$y = \sqrt{x}$$



Transformations

1)

2)

3)

For any function, $y = f(x)$, transformations can lead to:

$$y = \frac{1}{2}(x-3)^2 + 2$$

$$y = -2|4(x-3)| - 1$$

$$y + 6 = 2\sqrt{3x-9}$$

Translations of $y = f(x)$ with point (m, n)

a)

b)

c)

d)

Reflections of $y = f(x)$ with point (m, n)

a)

b)

