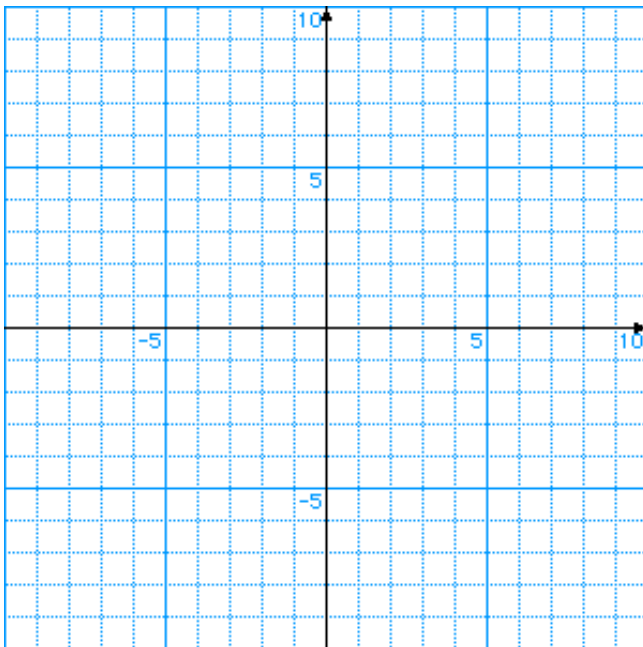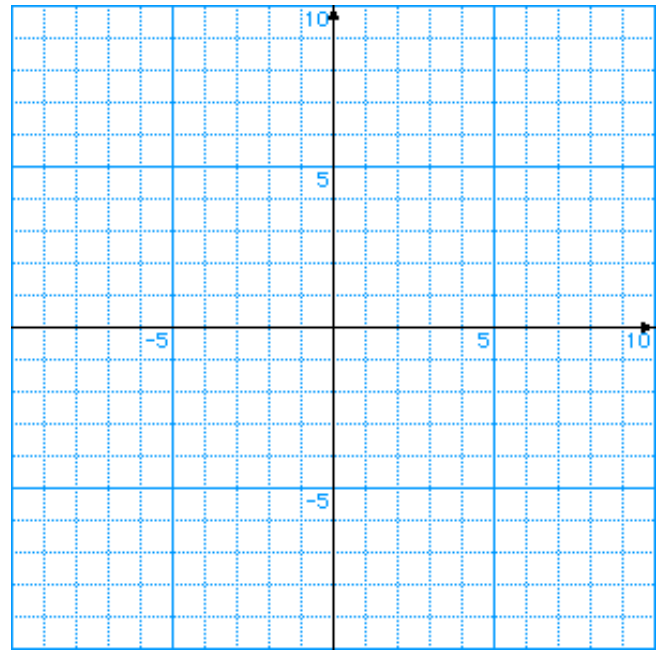# Reflections Assignment₁

Name:

1. **For each of the following equations, draw**
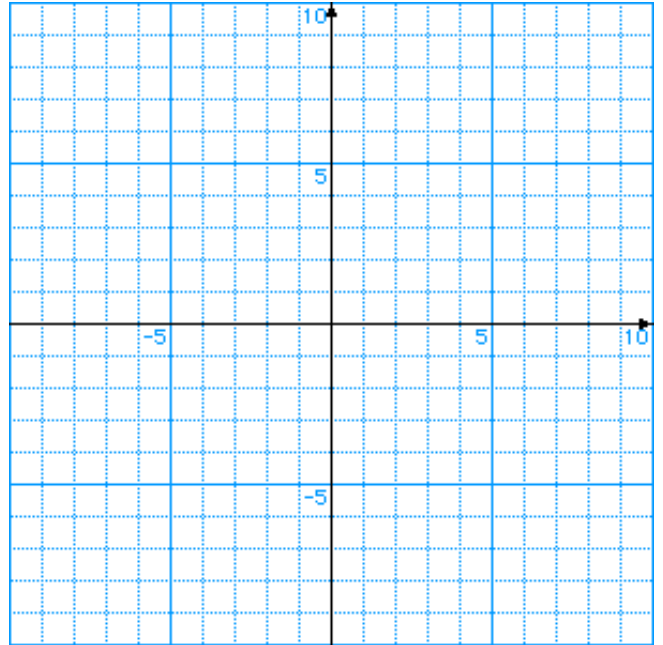
   a. $y = f(x)$

   b. $y = f(-x)$

   c. State the equation of the new function.

   d. State the domain, range, and any asymptotes if they exist.

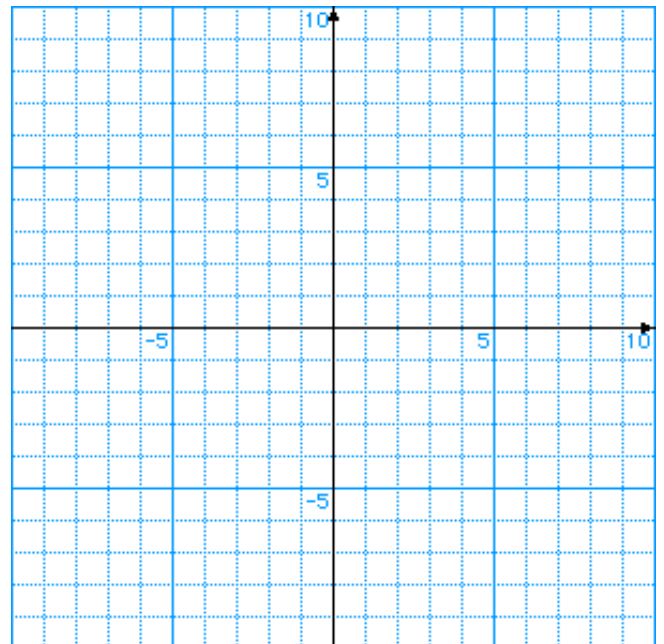$$f(x) = x^2 + 1$$

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

$$f(x) = \sqrt{x+2}$$

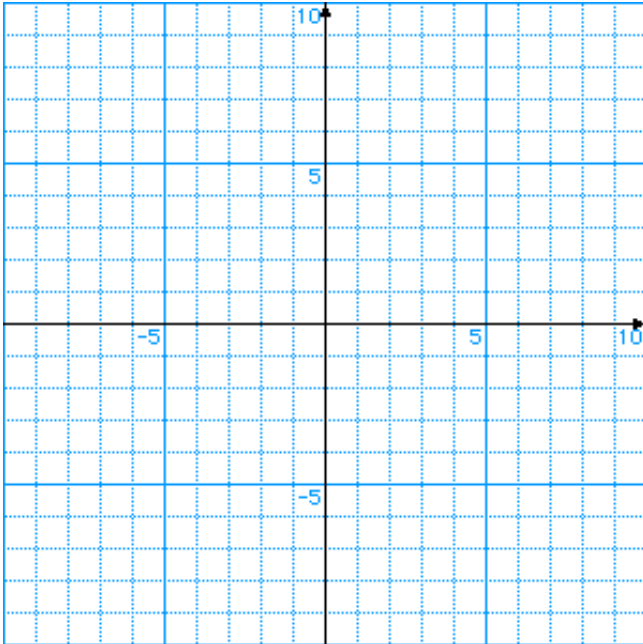Given $y = f(x)$, in $y = f(-x)$, $(x, y) \rightarrow (-x, y)$

A reflection in the y-axis means that every 'x' coordinate changes sign.

2. For each of the following equations, draw

a. $y = f(x)$

b. $y = -f(x)$

c. State the equation of the new function.

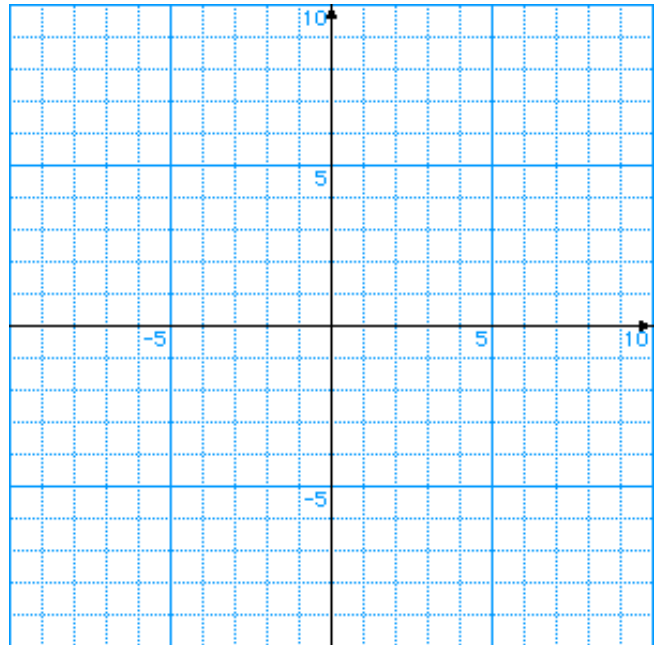d. State the domain, range, and any asymptotes if they exist.

$$f(x) = |x+2|$$

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

$$f(x) = \sqrt{x + 2}$$

Given $y = f(x)$, in $y = -f(x)$, $(x, y) \rightarrow (x, -y)$

A reflection in the x-axis means that every 'x' coordinate changes sign.