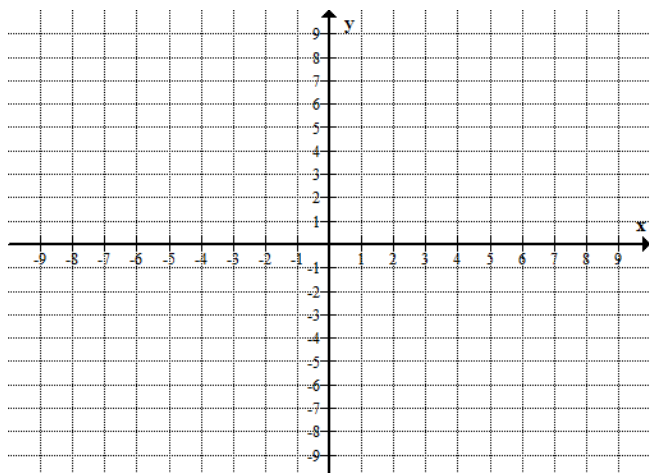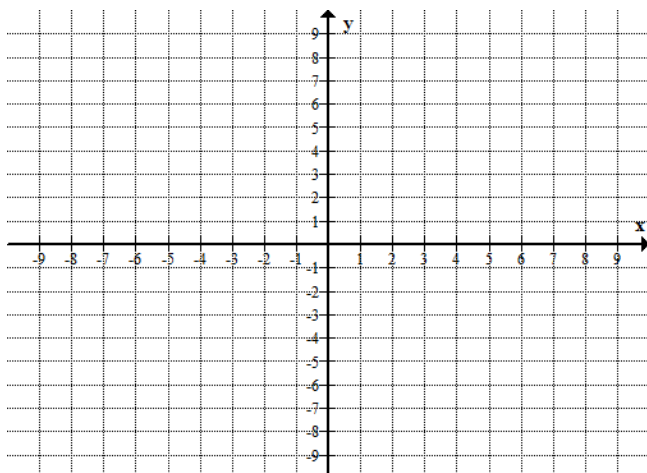Graphing using transformations. You studied this graphing techniques in College Algebra. Here is the summary of graphing using transformations : https://www.youtube.com/watch?v=An29CALYjAA. Please recall by doing the following exercises

1. Graph $y = x^2 + 3$ and $y = x^2 - 4$. Start with the basic function. Plot exactly 4 points when graphing it.
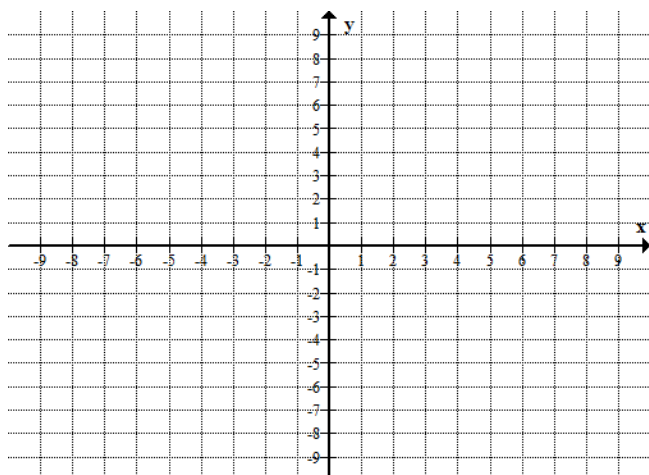
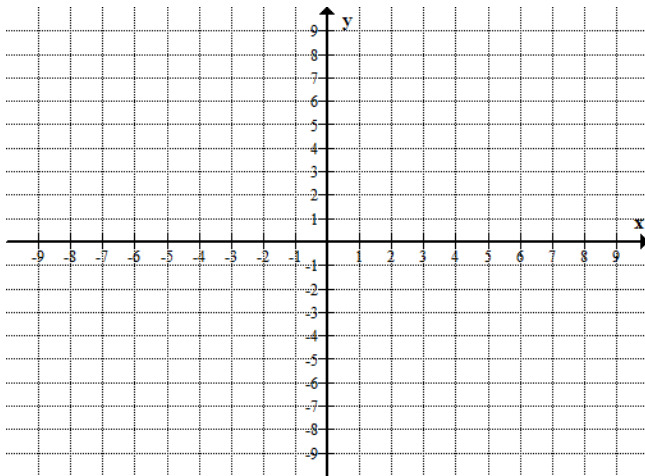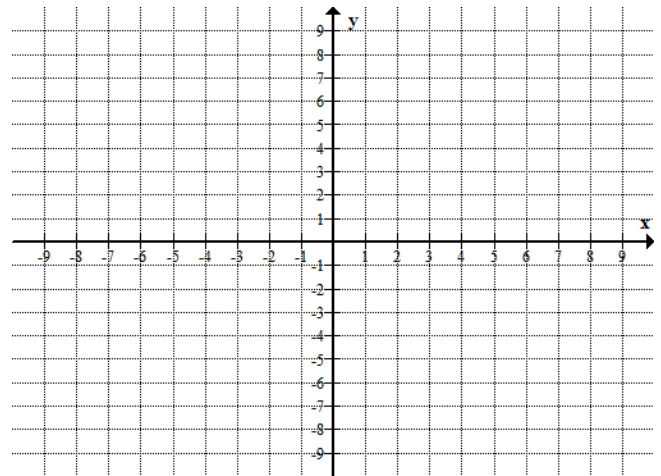Basic function $y = x^2$

$y = x^2 + 3$

$Y = x^2 - 4$

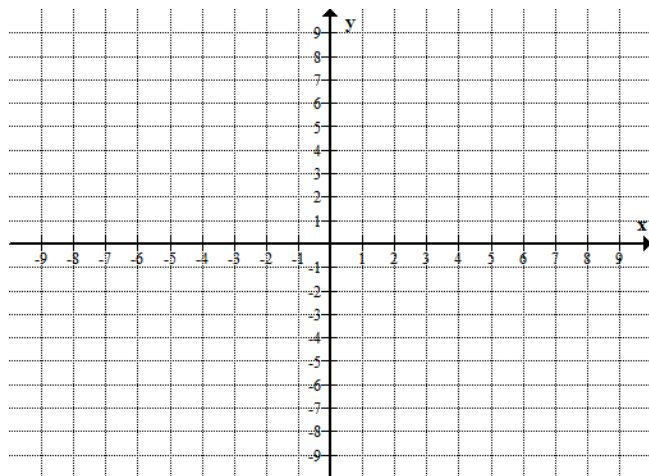2. Graph y = |x-2| and y = |x+4|. Start with the basic function. Plot exactly 4 points when graphing it.

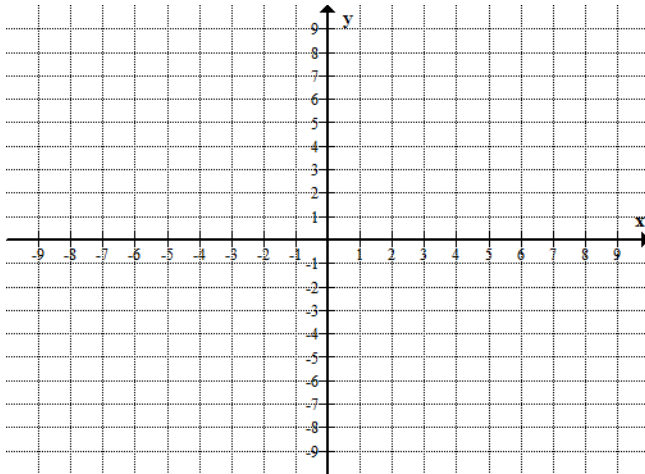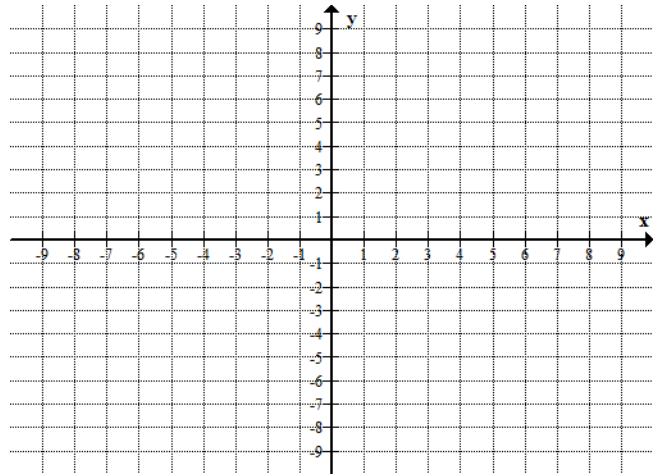Basic function: y = _____

y = |x-2|

y = | x+ 4|

3. Graph $y = -\sqrt{x}$, $y = \sqrt{-x}$, $y = 3\sqrt{x}$, $y = \dfrac{1}{3}\sqrt{x}$, $y = \sqrt{2x}$. Start with the basic function. Plot exactly 4 points when graphing it.
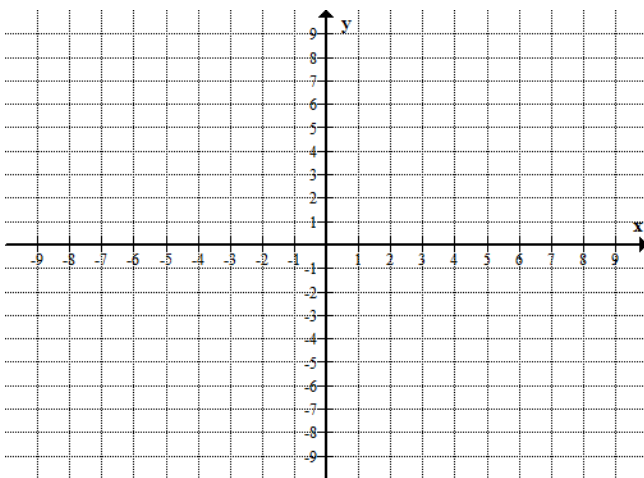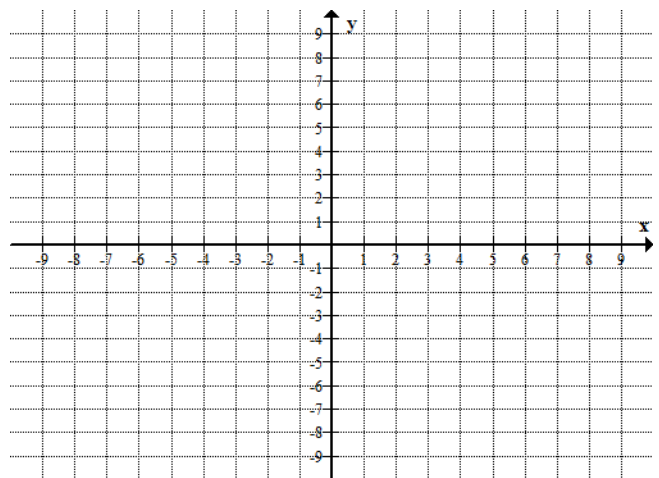
Basic function   y = _____
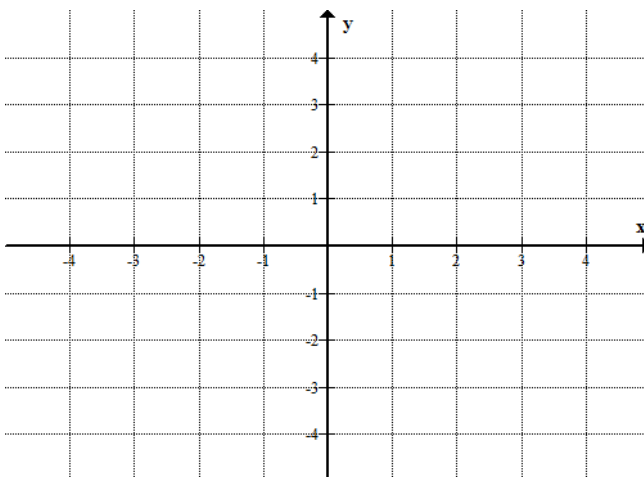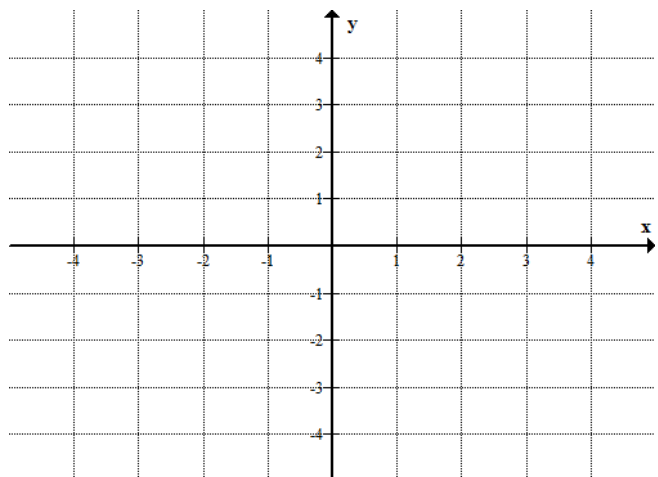
$$y = -\sqrt{x}$$

$$y = \sqrt{-x}$$

$$y = 3\sqrt{x}$$
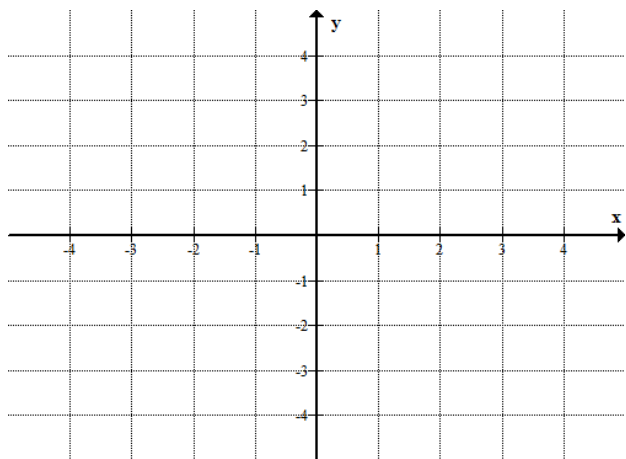
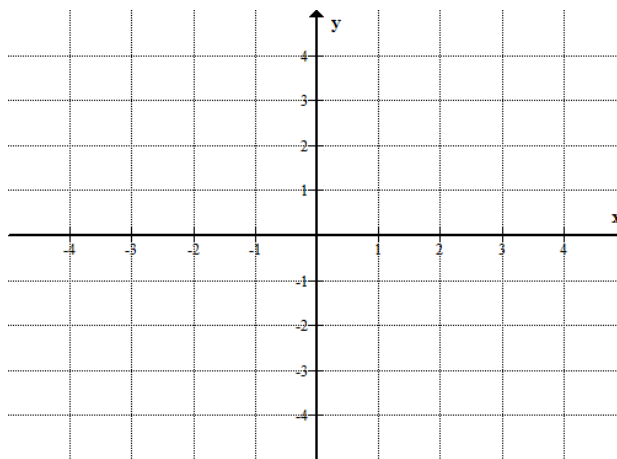$$y = \dfrac{1}{3}\sqrt{x}$$

$$y = \sqrt{2x}$$

4. Graph $y = -2\sqrt{x+1} + 2$ using transformations. Start with the basic function. Plot accurately at least 3 points and use them to perform transformations. Do not graph by plotting the points! Show one transformation at a time in a correct order (clearly labeled). Write the equation of each graph
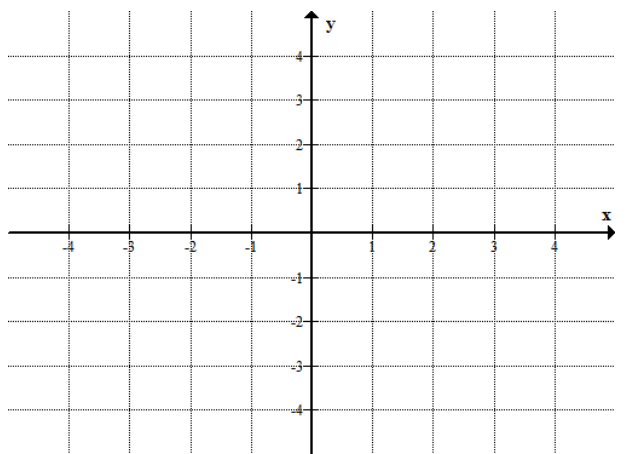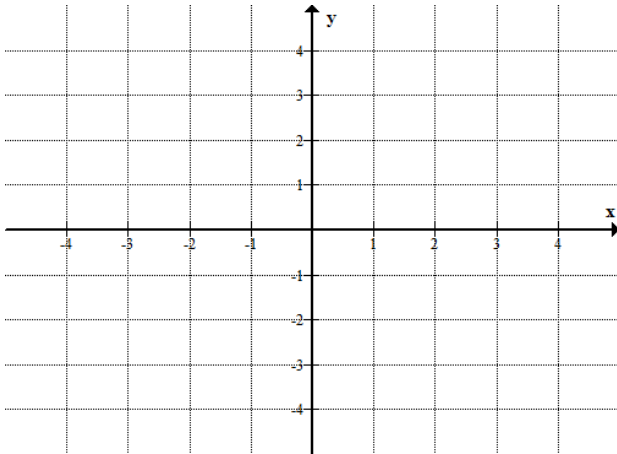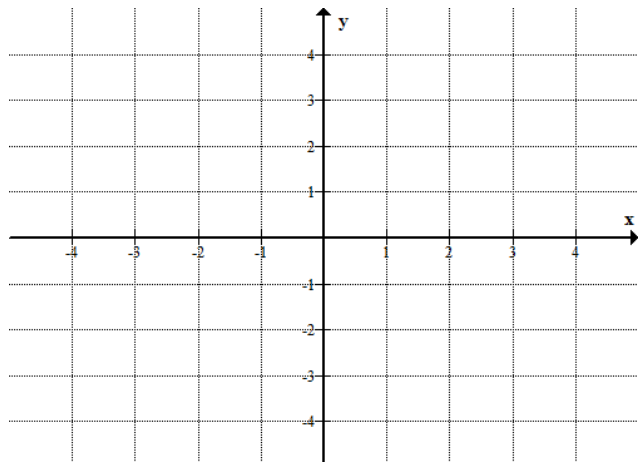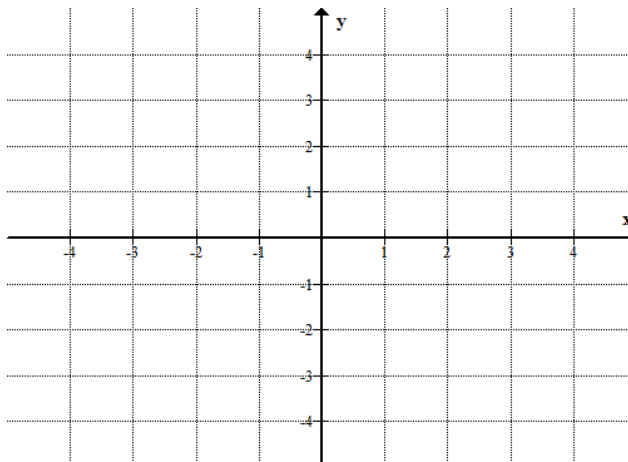
y = _____

y = _____

Y = _____

y = _____

Y = _____
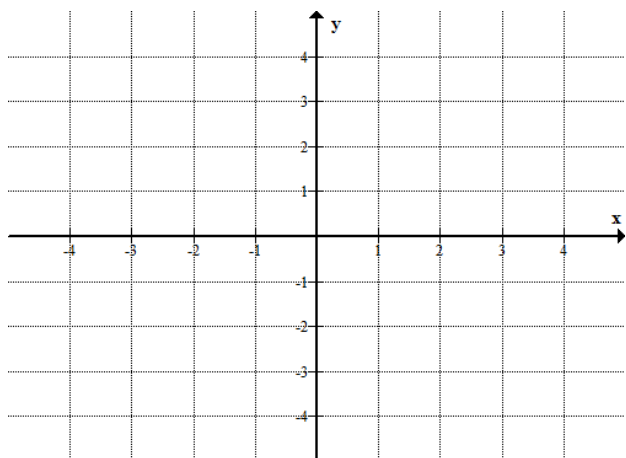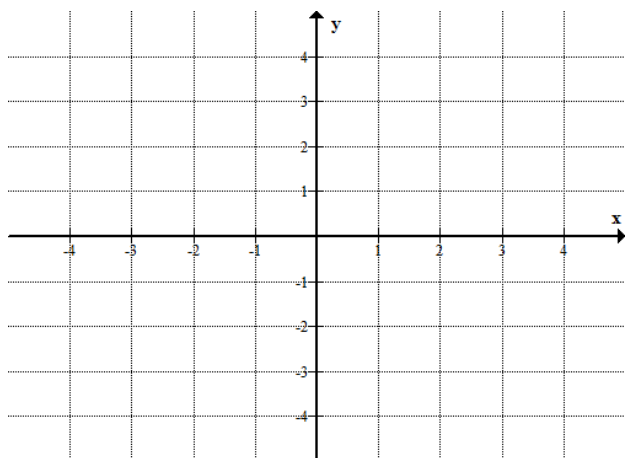
y = _____

5. Graph $y = -|2x+1| - 2$ using transformations. Start with the basic function. Plot accurately at least 3 points and use them to perform transformations. Do not graph by plotting the points! Show one transformation at a time in a correct order (clearly labeled). Write the equation of each graph
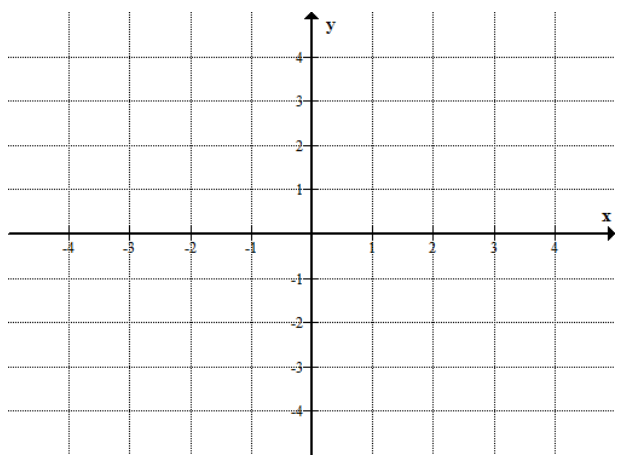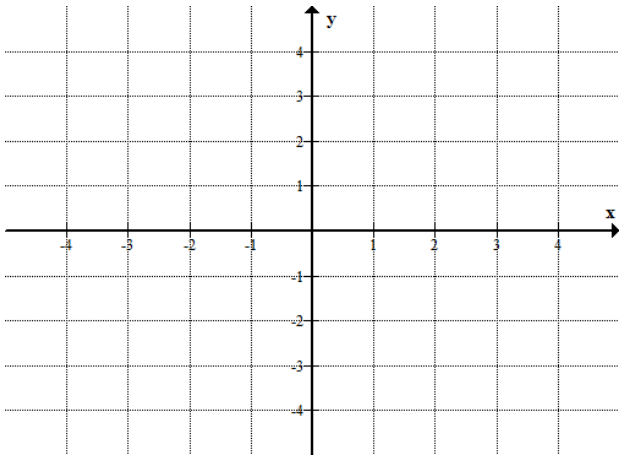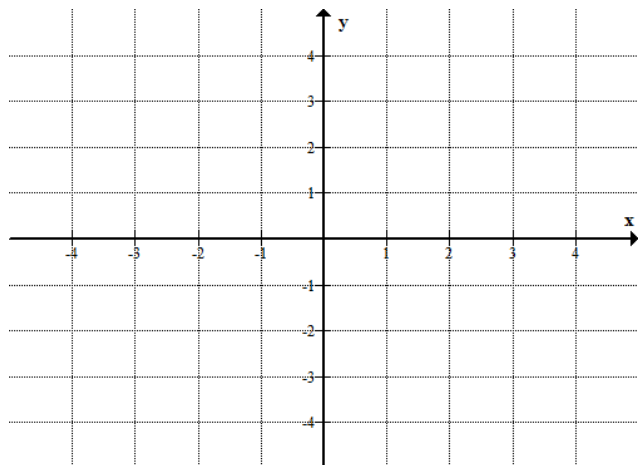
y = _____

y = _____

Y = _____

y = _____

Y = _____

y = _____