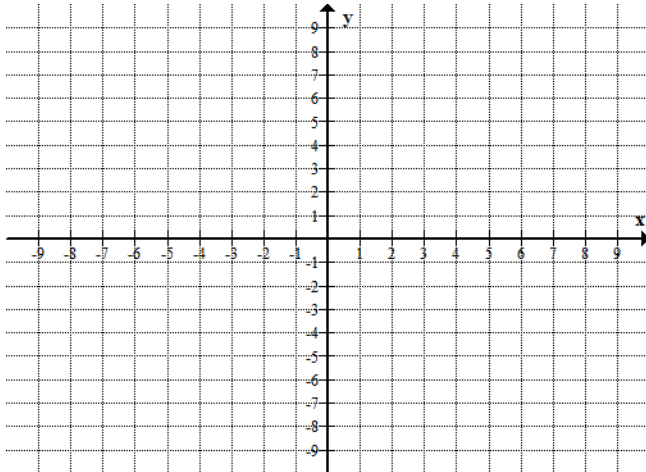


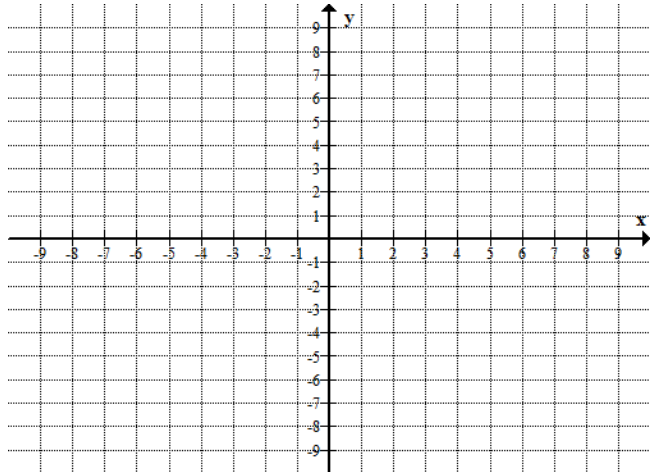
Graphing using transformations. You studied this graphing techniques in College Algebra. Here is the summary of graphing using transformations : <https://www.youtube.com/watch?v=An29CALYjAA>. Please recall by doing the following exercises

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

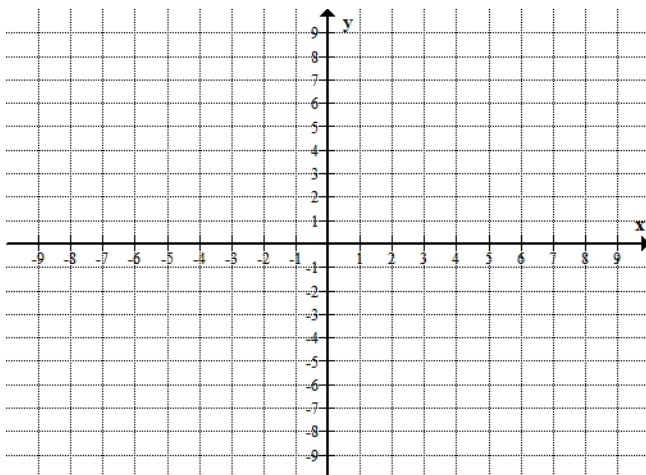
Basic function $y = x^2$



$y = x^2 + 3$

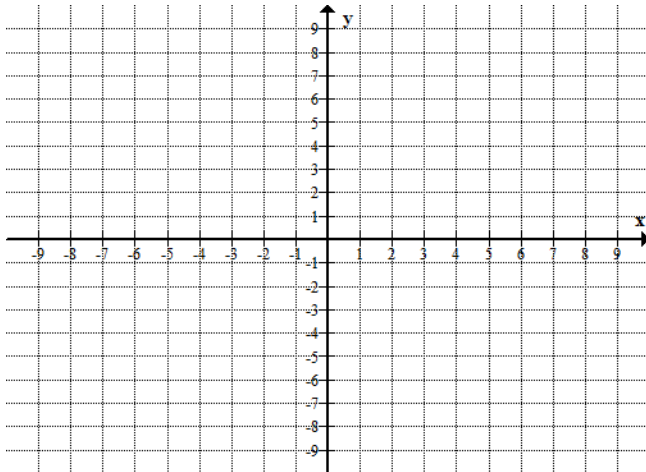


$y = x^2 - 4$

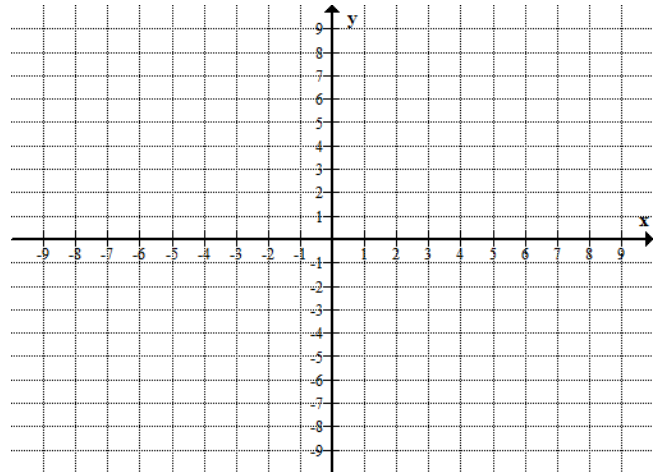


2. Graph $y = |x-2|$ and $y = |x+4|$. Start with the basic function. Plot exactly 4 points when graphing it.

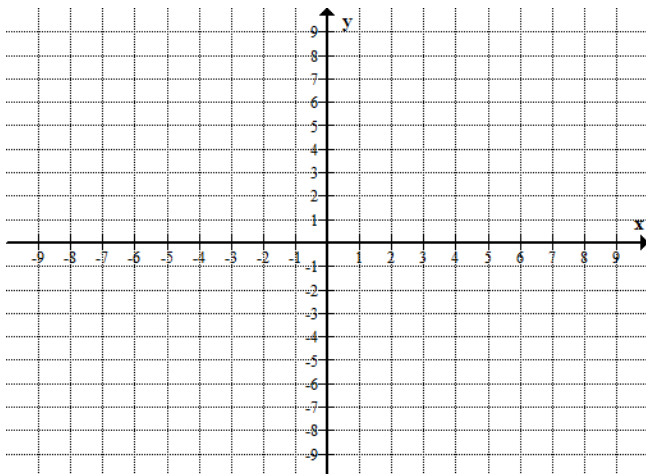
Basic function: $y = \underline{\hspace{2cm}}$



$y = |x-2|$

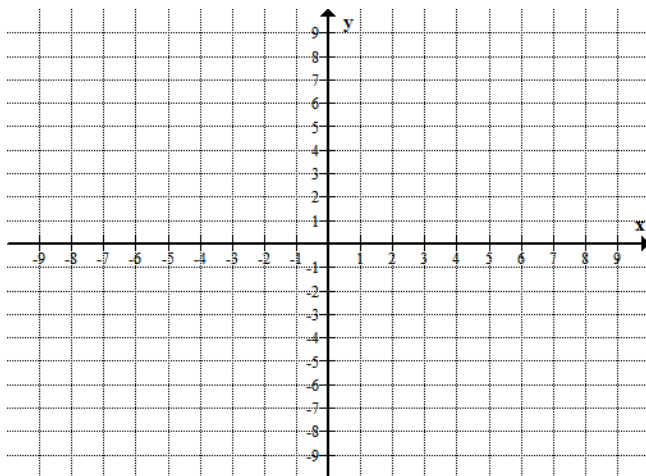


$y = |x+4|$

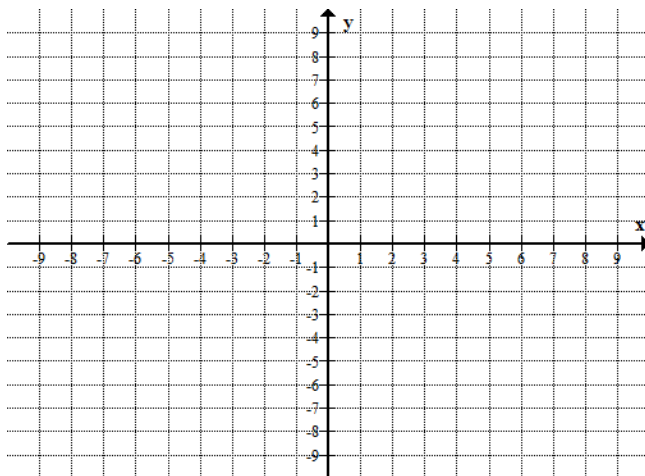


3. Graph $y = -\sqrt{x}$, $y = \sqrt{-x}$, $y = 3\sqrt{x}$, $y = \frac{1}{3}\sqrt{x}$, $y = \sqrt{2x}$. Start with the basic function. Plot exactly 4 points when graphing it.

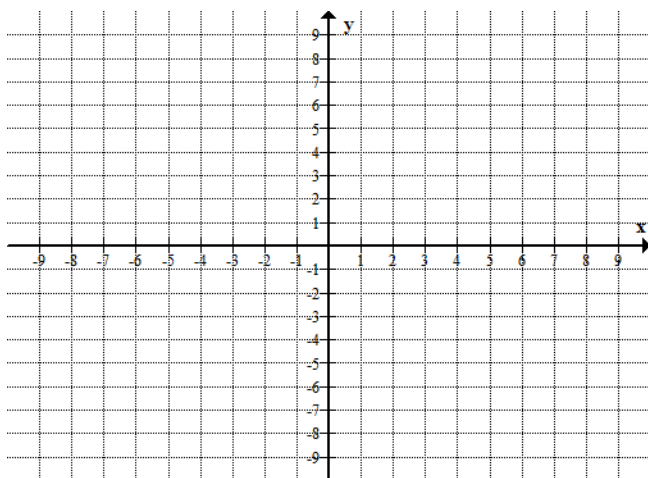
Basic function $y = \underline{\hspace{2cm}}$



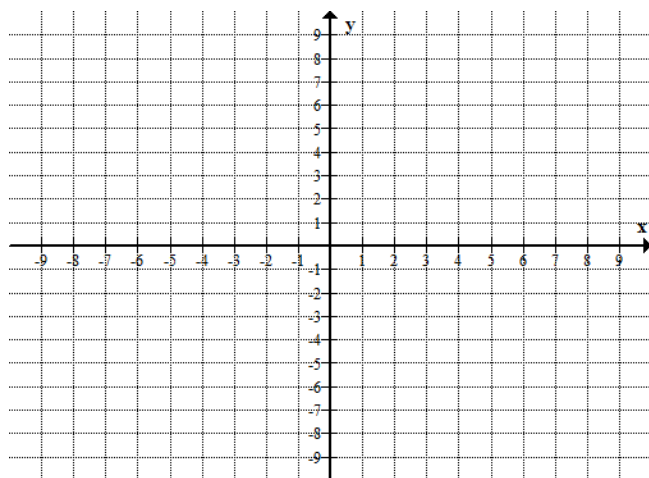
$$y = -\sqrt{x}$$



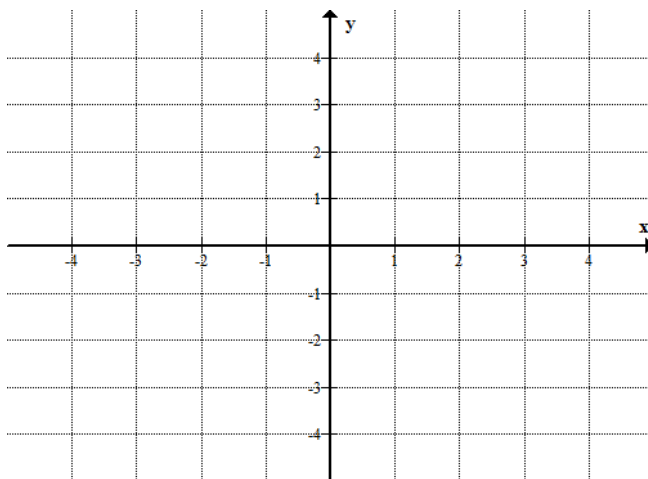
$$y = \sqrt{-x}$$



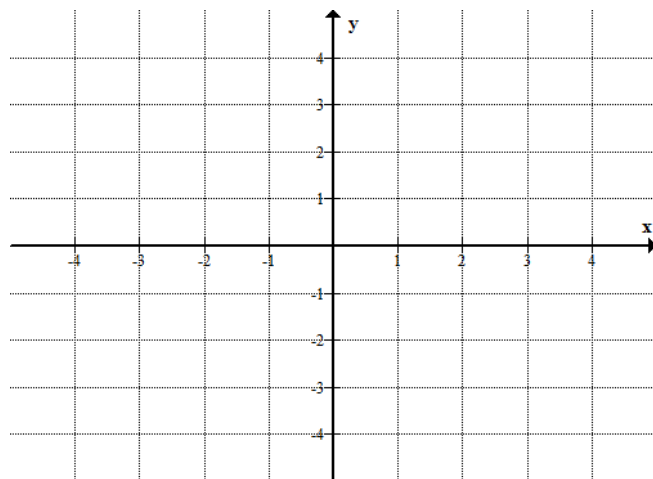
$$y = 3\sqrt{x}$$



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

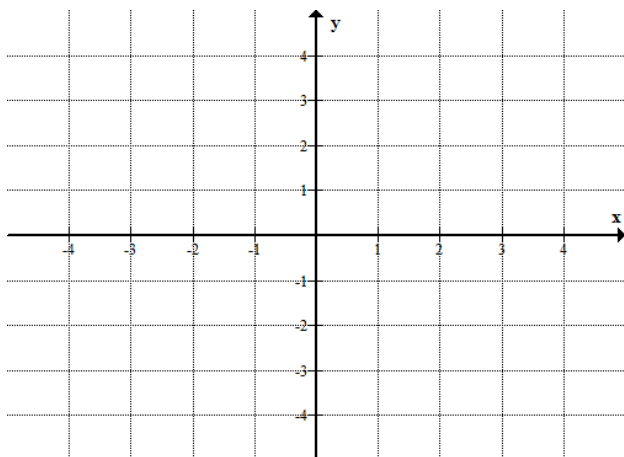


$$y = \sqrt{2x}$$

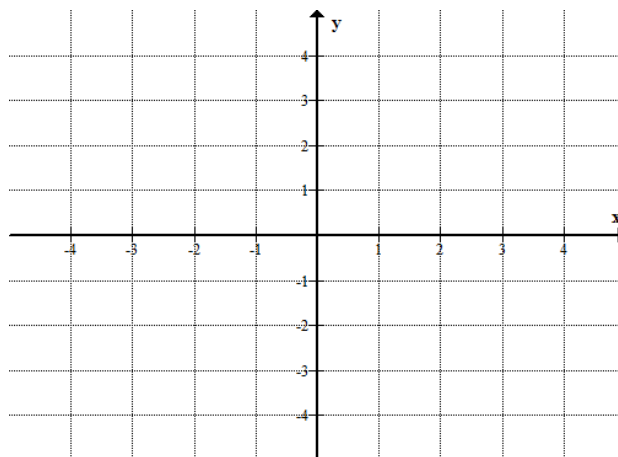


4. Graph $y = -2\sqrt{x+1} + 2$ using transformations. Start with the basic function. Plot accurately at least 3 points and use them to perform transformations. Do not graph by plotting the points! Show one transformation at a time in a correct order (clearly labeled). Write the equation of each graph

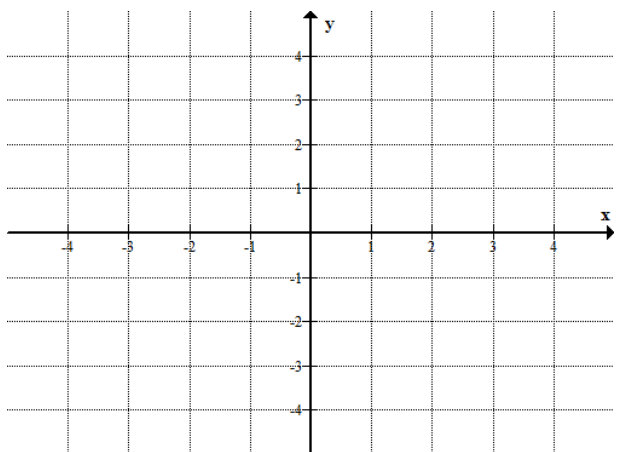
$y =$ _____



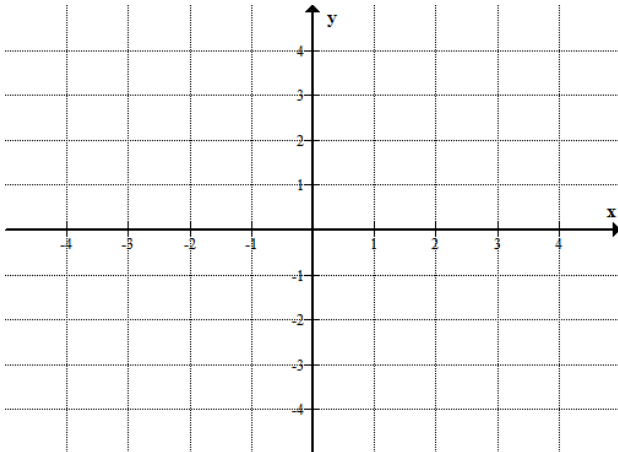
$y =$ _____



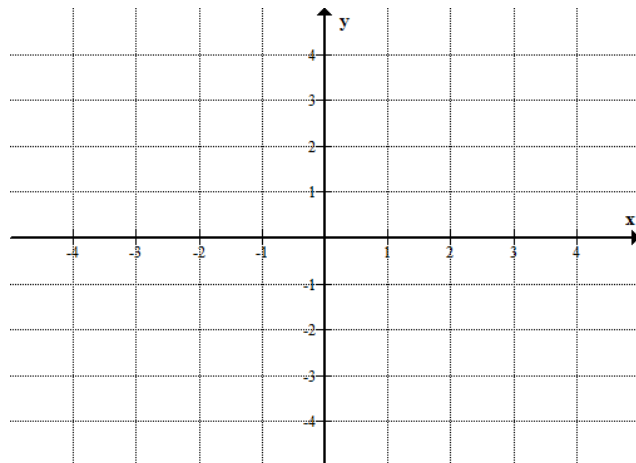
$Y =$ _____



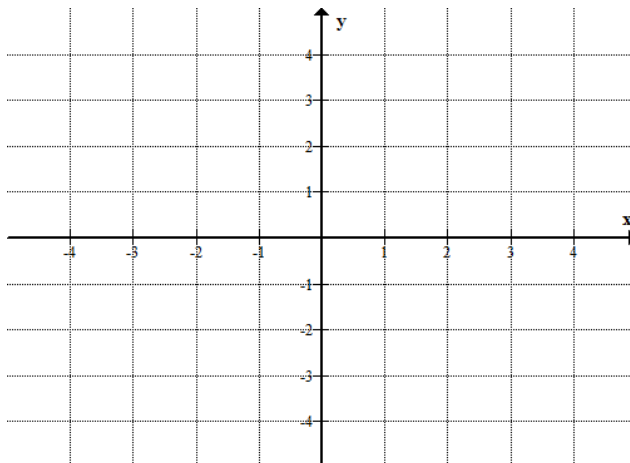
$y =$ _____



$Y =$ _____

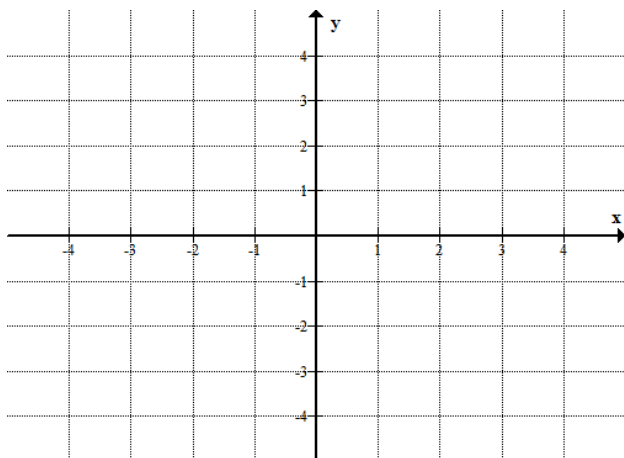


$y =$ _____

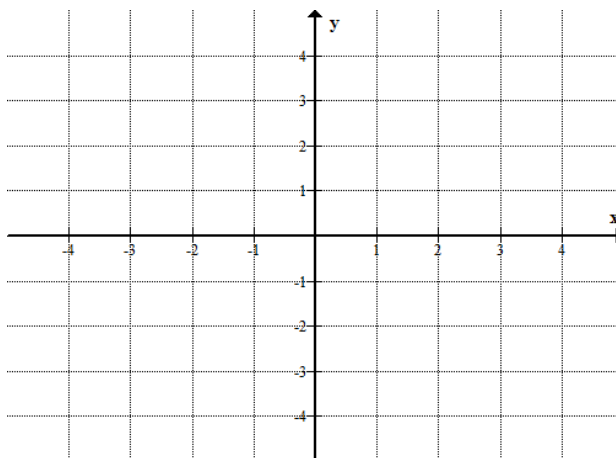


5. Graph $y = -|2x+1|-2$ using transformations. Start with the basic function. Plot accurately at least 3 points and use them to perform transformations. Do not graph by plotting the points! Show one transformation at a time in a correct order (clearly labeled). Write the equation of each graph

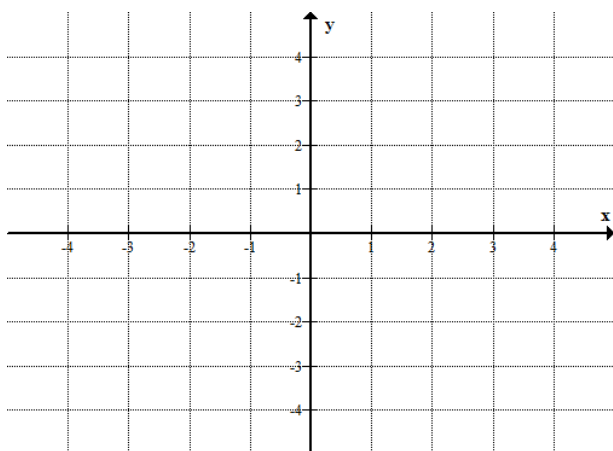
$y =$ _____



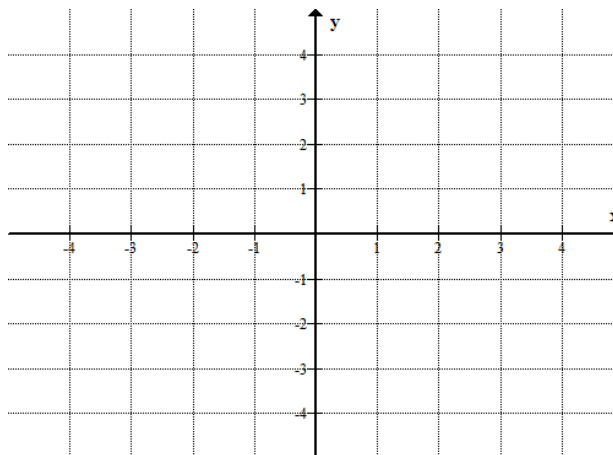
$y =$ _____



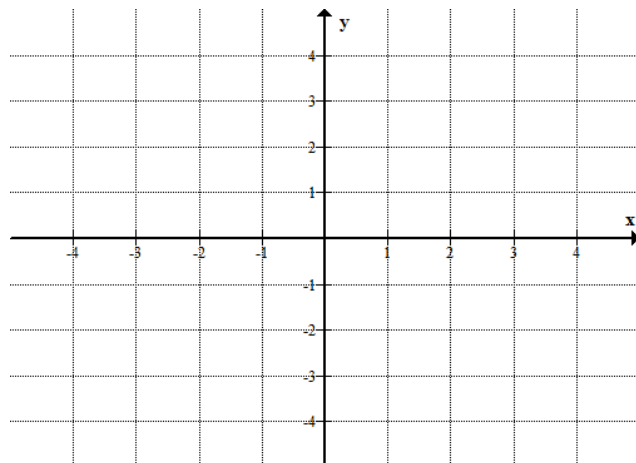
$Y =$ _____



$y =$ _____



$Y =$ _____



$y =$ _____

