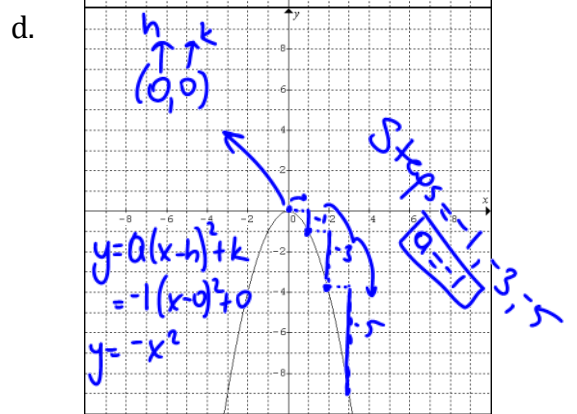
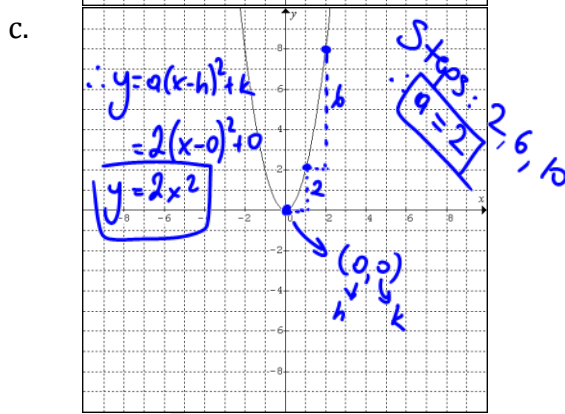
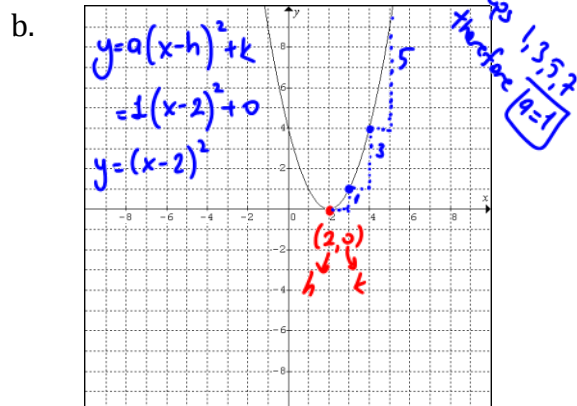
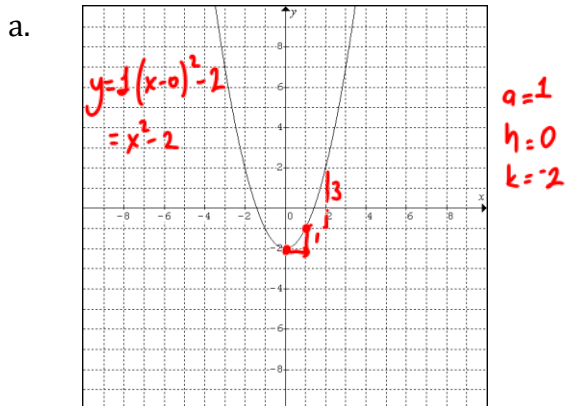


1. Match the graph with the correct equation by placing the letter of the graph UNDER the equation. Note: Only 4 of the equations will be used. [K4]



$y = x^2$ d $y = -x^2$ $y = x^2 + 2$ a $y = x^2 - 2$ $y = (x+2)^2$ b $y = (x-2)^2$ c $y = 2x^2$ $y = \frac{1}{2}x^2$
 _____ d _____ a _____ b _____ c _____

2. State the transformations that took place to the basic $y = x^2$ to obtain the parabola given. Use proper math terminology. [C4]

$y = -2(x-3)^2 + 1$

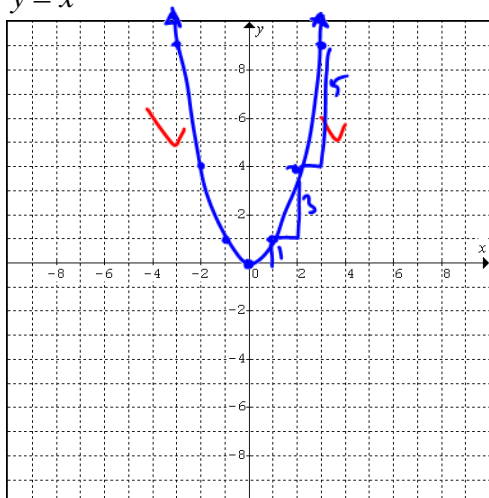
R : Reflected in the "x" axis ✓

S : Vertical stretch by a factor of 2 ✓

T : Shifted 3 units RIGHT, 1 unit up ✓

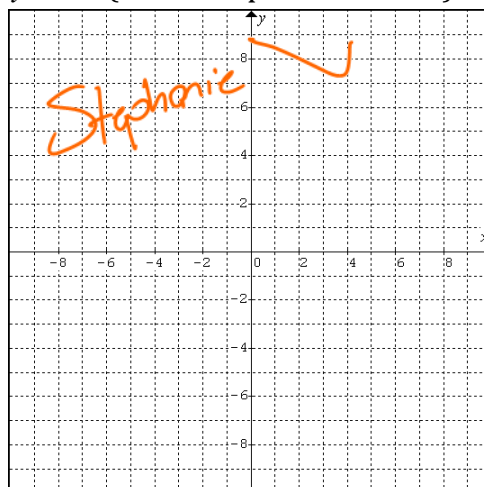
3. Graph each of the following.

a. $y = x^2$



b. $y = 2^x$ (hint: complete the table)

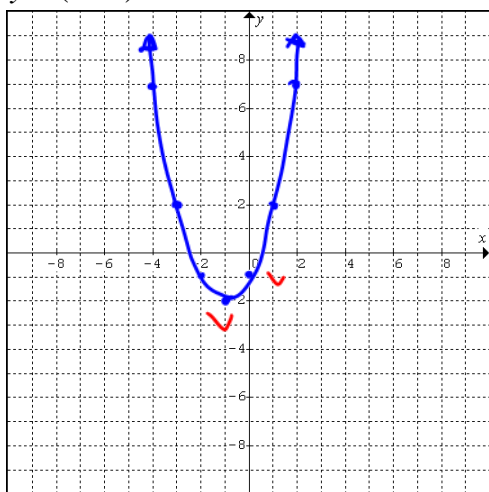
2^{-3}
 $1/3$
 $1/2$



[K2+K2]

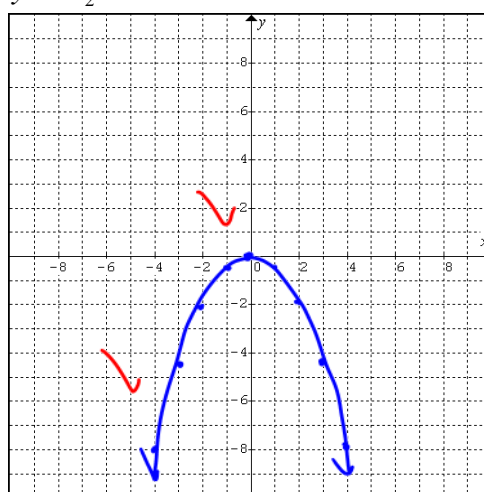
| x | y |
|----|---------------------|
| -3 | $\frac{1}{8}$ 0.125 |
| -2 | $\frac{1}{4}$ 0.25 |
| -1 | $\frac{1}{2}$ 0.5 |
| 0 | 1 |
| 1 | 2 |
| 2 | 4 |
| 3 | 8 |

c. $y = (x+1)^2 - 2$ $(-1, -2)$ 1, 3, 5, 7

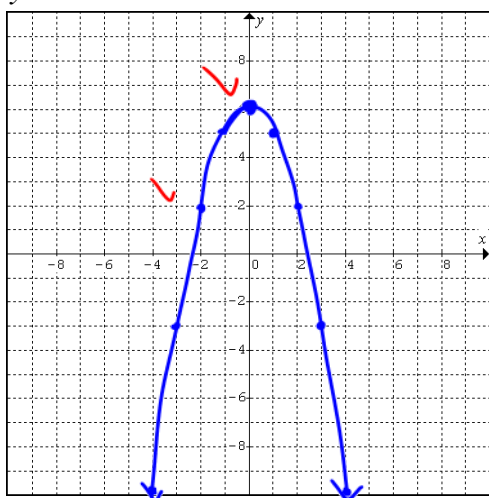


d. $y = -\frac{1}{2}x^2$ $(0,0)$ -0.5, -1.5, -2.5, -3.5

[A2+A2]



e. $y = -x^2 + 6$ $(0,6)$ -1, -3, -5



f. $y = 2(x-3)^2 - 4$ $(3,-4)$ 2, 6, 10

[A2+A3]

