

Math 2

Name Kay ID: 1

Date _____ Period _____

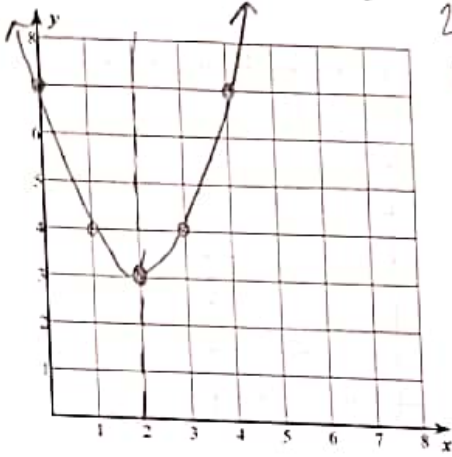
4.5 Standard Form

Sketch the graph of each function.

1) $y = x^2 - 4x + 7$

$\frac{4}{2} = 2$

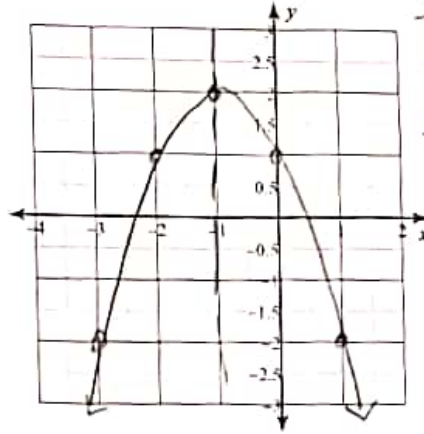
$2^2 - 4(2) + 7$
 $4 - 8 + 7$
 $-4 + 7$
 $= 3$



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

$\frac{2}{2(-1)} = \frac{2}{-2} = -1$

$-(-1)^2 - 2(-1) + 1$
 $-1 + 2 + 1$
 $= 2$

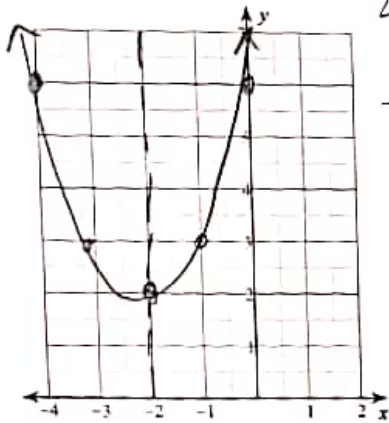


$-(-1)^2 - 2(1) + 1$
 $-1 - 2 + 1$
 $-3 + 1$
 $= -2$

3) $y = x^2 + 4x + 6$

$\frac{-4}{2} = -2$

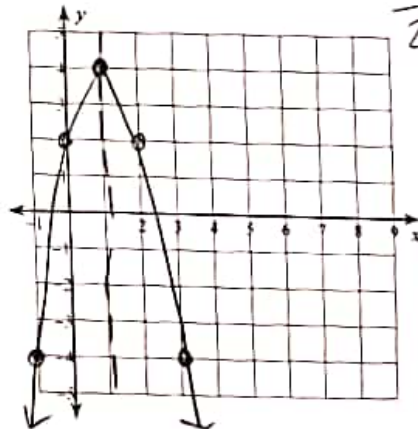
$-2^2 + 4(-2) + 6$
 $4 - 8 + 6$
 $-4 + 6 = 2$



4) $y = -2x^2 + 4x + 2$

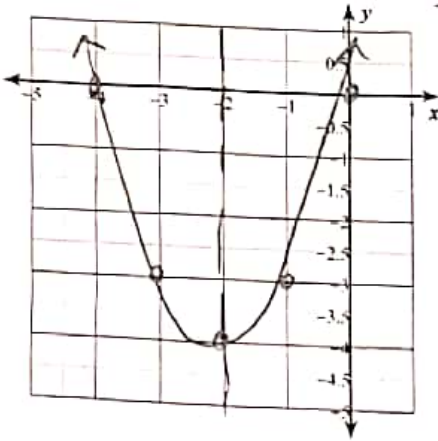
$\frac{-4}{2(-2)} = 1$

$-2(1)^2 + 4(1) + 2$
 $-2 + 4 + 2$
 4



$-2(3)^2 + 4(3) + 2$
 $-18 + 12 + 2$
 $-6 + 2$
 $= -4$

5) $y = x^2 + 4x + 0$

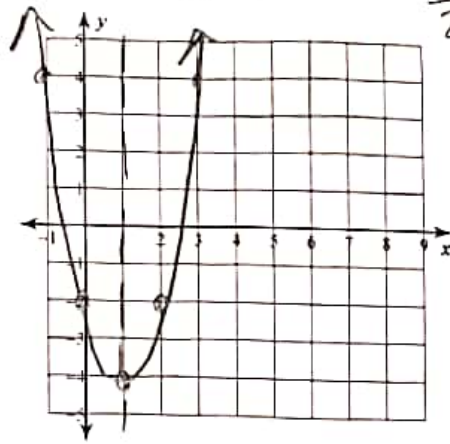


$$\frac{-4}{2} = -2$$

$$-2^2 + 4(-2)$$

$$4 - 8 = -4$$

6) $y = 2x^2 - 4x - 2$



$$\frac{4}{2(2)} = 1$$

$$2(1)^2 - 4(1) - 2$$

$$2 - 4 - 2$$

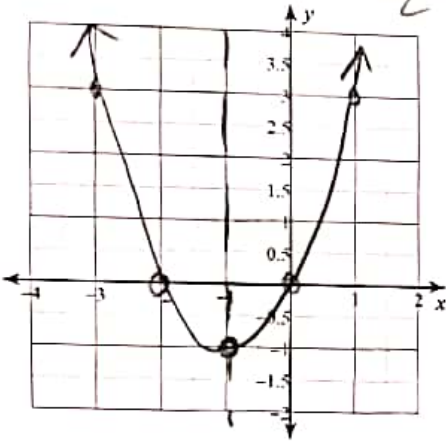
$$-4$$

$$2(3)^2 - 4(3) - 2$$

$$18 - 12 - 2$$

$$4$$

7) $y = x^2 + 2x + 0$



$$\frac{-2}{2} = -1$$

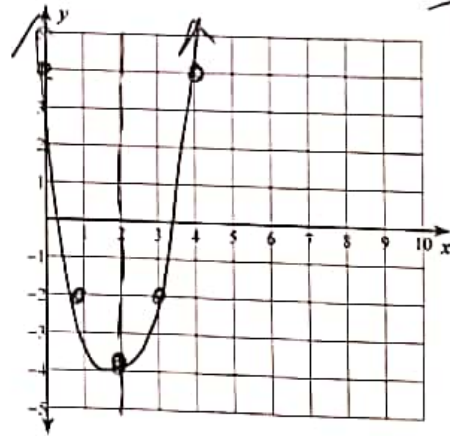
$$-1^2 + 2(-1)$$

$$1 - 2 = -1$$

$$1^2 + 2$$

$$3$$

8) $y = 2x^2 - 8x + 4$



$$\frac{8}{2(2)} = \frac{8}{4} = 2$$

$$2(2)^2 - 8(2) + 4$$

$$8 - 16 + 4$$

$$-8 + 4$$

$$-4$$