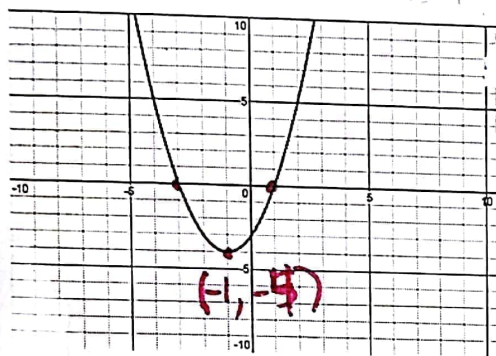


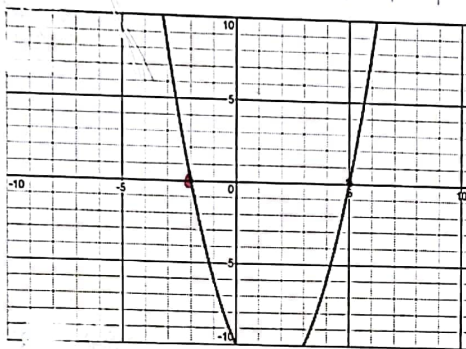
Standard Form:  $y = ax^2 + bx + c$

## Intercept Form

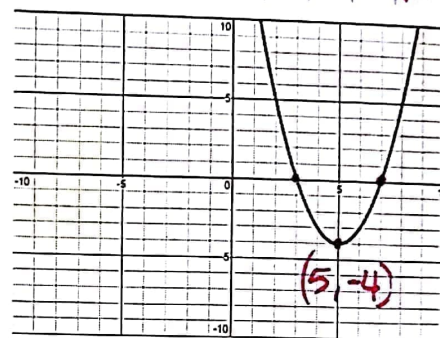
$(-3, 0)$   $(1, 0)$



$(-2, 0)$   $(5, 0)$



$(3, 0)$   $(7, 0)$



Intercept Form:

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

Standard Form:

$$y = x^2 + 2x - 3$$

Vertex Form:

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

Intercept Form:

$$y = (x+2)(x-5)$$

Standard Form:

$$y = x^2 - 3x - 10$$

Vertex Form:

hm... Can't see it!

Intercept Form:

$$y = (x-3)(x-7)$$

Standard Form:

$$y = x^2 - 10x + 21$$

Vertex Form:

$$y = (x-5)^2 - 4$$

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# Multiplying Polynomials

## Multiplying Polynomials: Dice Game

You and your partner will be racing to complete these problems! While one of you works on the problems, the other will be rolling the dice. When the dice roller rolls a 1, they will place the dice on their partners desk, take their partners pencil, and start working on their problems while the other partner starts rolling. Go back and forth like this until someone finishes the worksheet. Check to make sure your answers are correct! Go!

1. $x(x^2 + 4)$ $x^3 + 4x$	2. $x^3(x^5 - x^2)$ $x^8 - x^5$	3. $(x + 2)(x - 4)$ $x^2 - 2x - 8$
4. $(5x + 3)(x + 2)$ $5x^2 + 13x + 6$	5. $-4x(x - 2)$ $-4x^2 + 8x$	6. $(x + 4)(-x - 3)$ $-x^2 - 7x - 12$
7. $(2x - 5)^2$ $4x^2 - 20x + 25$	8. $(x + 8)(4x - 5)$ $4x^2 + 27x - 40$	9. $(3x - 5)(3x - 6)$ $9x^2 - 33x + 30$
10. $(x - 9)(x + 9)$ $x^2 - 81$	11. $(4x + 3)(3x - 4)$ $12x^2 - 7x - 12$	12. $(2x^2 - 5)(-x + 4)$ $-2x^3 + 8x^2 + 5x - 20$