

# M10 - 5.2 - Identifying "a", "b" and "c" in Polynomials HW

General form:  $ax^2 + bx + c$

$$3x^2 + 10x + 5$$

$$a = 3$$

$$b = 10$$

$$c = 5$$

$$x^2 - 3x + 2$$

$$a = 1$$

$$b = -3$$

$$c = 2$$

$$15s - 2s^2 + 18$$

$$a = -2$$

$$b = 15$$

$$c = 18$$

$$-2n^2 + 18$$

$$a = -2$$

$$b = 0$$

$$c = 18$$

$$\frac{1}{2}b^2 - 4b + 7$$

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

$$b = -4$$

$$c = 7$$

$$1y^2 - 4y + 6$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$c = \underline{\hspace{2cm}}$$

$$2t - 3t^2 + 9$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$c = \underline{\hspace{2cm}}$$

$$x^2 + 2x + 5$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$c = \underline{\hspace{2cm}}$$

$$4x^2 - 4x - 24$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$c = \underline{\hspace{2cm}}$$

$$13 - x^2 - 6x$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$c = \underline{\hspace{2cm}}$$

$$21 + 7x^2 - 8x$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$c = \underline{\hspace{2cm}}$$

$$7x - x^2$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$c = \underline{\hspace{2cm}}$$

$$t^2 - 5t + 3$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$c = \underline{\hspace{2cm}}$$

$$\frac{3}{4}x + x^2$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$c = \underline{\hspace{2cm}}$$

$$\frac{x}{2} + x^2$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$c = \underline{\hspace{2cm}}$$

# M10 - 5.2 - Factoring $x^2 + bx + c$ "a = 1" HW

**Factor the following**

$$x^2 + 5x + 6$$

$$\underline{\quad} \times \underline{\quad} =$$
  

$$\underline{\quad} + \underline{\quad} =$$

Check by foil:

$$x^2 + 6x + 8$$

$$\underline{\quad} \times \underline{\quad} =$$
  

$$\underline{\quad} + \underline{\quad} =$$

$$x^2 + 7x + 12$$

$$\underline{\quad} \times \underline{\quad} =$$
  

$$\underline{\quad} + \underline{\quad} =$$

$$x^2 + 3x - 4$$

$$\underline{\quad} \times \underline{\quad} =$$
  

$$\underline{\quad} + \underline{\quad} =$$

$$x^2 + 4x + 3$$

$$\underline{\quad} \times \underline{\quad} =$$
  

$$\underline{\quad} + \underline{\quad} =$$

$$x^2 - 3x - 18$$

$$\underline{\quad} \times \underline{\quad} =$$
  

$$\underline{\quad} + \underline{\quad} =$$

$$x^2 - 11x + 24$$

$$\underline{\quad} \times \underline{\quad} =$$
  

$$\underline{\quad} + \underline{\quad} =$$

$$x^2 + x - 30$$

$$\underline{\quad} \times \underline{\quad} =$$
  

$$\underline{\quad} + \underline{\quad} =$$

$$x^2 - 2x - 4$$

$$\underline{\quad} \times \underline{\quad} =$$
  

$$\underline{\quad} + \underline{\quad} =$$

$$x^2 - 13x - 30$$

$$\underline{\quad} \times \underline{\quad} =$$
  

$$\underline{\quad} + \underline{\quad} =$$

$$x^2 - 13x + 30$$

$$\underline{\quad} \times \underline{\quad} =$$
  

$$\underline{\quad} + \underline{\quad} =$$

# M10 - 5.2 - Factoring $x^2 + bx + c$ "a = 1" HW

**Factor the following**

$$x^2 + 15x + 54 \quad \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$

Check by foil:

$$x^2 + 13x + 40 \quad \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$

$$x^2 + 5x - 24 \quad \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$

$$x^2 - 13x + 36 \quad \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$

$$x^2 + 12x + 27 \quad \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$

$$x^2 + 10x + 24 \quad \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$

$$x^2 - 11x + 28 \quad \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$

$$x^2 - 10x + 21 \quad \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$

$$x^2 - 16x + 12 \quad \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$