

Completar Trinomio Cuadrado Perfecto



$$\frac{3x^2}{3} - \frac{12x}{3} - \frac{15}{3} = \frac{0}{3}$$

$$x^2 - 4x - 5 = 0$$

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$$\left(\frac{b}{2}\right)^2 = \left(4 \cdot \frac{1}{2}\right)^2 = (2)^2 = 4$$

$$x^2 - 4x + 4 = 5 + 4$$

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$$(x - 2)^2 = 9$$

$$\sqrt{(x - 2)^2} = \pm\sqrt{9}$$

$$x - 2 = \pm 3$$

$$x = 2 \pm 3$$

$$x = -1 \quad \text{or} \quad x = 5$$

Resuelve las ecuaciones cuadráticas completando el TCP

$$x^2 - 7x + 12 = 0$$

Paso 1. Despejar c

$$x^2 - 7x = (\quad)$$

Paso 2. Completar TCP

$$x^2 - 7x + (\text{---}) = -12 + (\text{---})$$

Paso 3. Factorizar a Binomio al cuadrado

$$(x - \text{---})^2 = \text{---}$$

Paso 4. Despejar cuadrado

$$x - \text{---} = \pm \sqrt{\text{---}}$$

Paso 5. Calcular x_1

$$x_1 = \text{---} + \text{---} = \text{---} =$$

Paso 6. Calcular x_2

$$x_2 = -\text{---} + \text{---} = \text{---} =$$



$$5x^2 + 12x + 4 = 0$$

Paso 1. Dividir entre a

$$\left(\frac{\quad}{\quad}\right)x^2 + \left(\frac{\quad}{\quad}\right)x + \left(\frac{\quad}{\quad}\right) = 0$$

Paso 2. Despejar c

$$x^2 + \left(\frac{\quad}{\quad}\right)x = -\left(\frac{\quad}{\quad}\right)$$

Paso 3. Completar TCP

$$x^2 + \left(\frac{\quad}{\quad}\right)x + \left(\frac{\quad}{\quad}\right) = -\left(\frac{\quad}{\quad}\right) + \left(\frac{\quad}{\quad}\right)$$

Paso 4. Factorizar a Binomio al cuadrado

$$\left(x + \frac{\quad}{\quad}\right)^2 = \frac{\quad}{\quad}$$

Paso 5. Despejar cuadrado

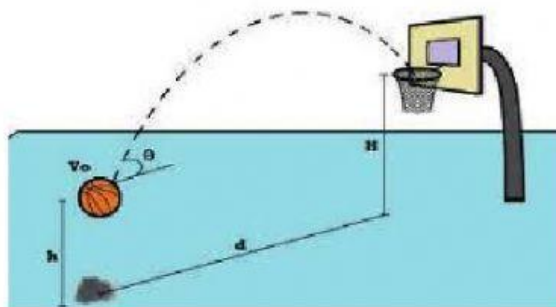
$$x + \frac{\quad}{\quad} = \pm \sqrt{\frac{\quad}{\quad}}$$

Paso 6. Calcular x_1

$$x_1 = \frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

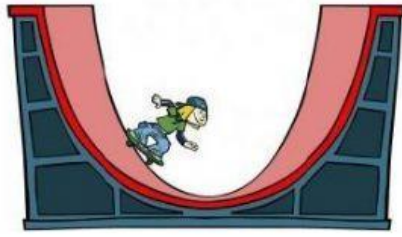
Paso 7. Calcular x_2

$$x_2 = -\frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$



$$9x^2 - 3x - 2 = 0$$

Paso 1. Dividir entre a	$\left(\frac{\quad}{\quad}\right)x^2 - \left(\frac{\quad}{\quad}\right)x - \left(\frac{\quad}{\quad}\right) = 0$
Paso 2. Despejar c	$x^2 - \left(\frac{\quad}{\quad}\right)x = \left(\frac{\quad}{\quad}\right)$
Paso 3. Completar TCP	$x^2 - \left(\frac{\quad}{\quad}\right)x + \left(\frac{\quad}{\quad}\right) = \left(\frac{\quad}{\quad}\right) + \left(\frac{\quad}{\quad}\right)$
Paso 4. Factorizar a Binomio al cuadrado	$\left(x - \frac{\quad}{\quad}\right)^2 = \frac{\quad}{\quad}$
Paso 5. Despejar cuadrado	$x - \frac{\quad}{\quad} = \pm \sqrt{\frac{\quad}{\quad}}$
Paso 6. Calcular x_1	$x_1 = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$
Paso 7. Calcular x_2	$x_2 = \frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$



$$2x^2 - 2x - 4 = 0$$

Paso 1. Dividir entre a

$$\left(\frac{\quad}{\quad}\right)x^2 - \left(\frac{\quad}{\quad}\right)x - \left(\frac{\quad}{\quad}\right) = 0$$

Paso 2. Despejar c

$$x^2 - x = 2$$

Paso 3. Completar TCP

$$x^2 - x + \left(\frac{\quad}{\quad}\right) = 2 + \left(\frac{\quad}{\quad}\right)$$

Paso 4. Factorizar a Binomio al cuadrado

$$\left(x - \frac{\quad}{\quad}\right)^2 = \frac{\quad}{\quad}$$

Paso 5. Despejar cuadrado

$$x - \frac{\quad}{\quad} = \pm \sqrt{\frac{\quad}{\quad}}$$

Paso 6. Calcular x_1

$$x_1 = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} =$$

Paso 7. Calcular x_2

$$x_2 = -\frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} =$$