

Ecuaciones cuadráticas (factorización y fórmula)

No hay factorización
 $(x - 2)(x - 2) = 0$
 $(-x + 5)(x - 2) = 0$
 $(2x - 1)(x - 3) = 0$

Factoriza los siguientes trinomios

1) $2x^2 - 7x + 3 = 0$ 2) $-x^2 + 7x - 10 = 0$ 3) $x^2 + x + 1 = 0$ 4) $x^2 - 4x + 4 = 0$

$2x$

x

$-x$

x

x

x

x

x

$x = -$ $x =$

$x =$ $x =$

$x =$ $x =$

$x =$ $x =$

En los siguientes ejercicios, primero organiza y simplifica los trinomios para factorizarlos

5) $2x - 3 = 1 - 3x + x^2$ 6) $2x^2 + (7 - x)^2 = 9$ 7) $7x^2 + 21x - 28 = 0$ 8) $18 = 6x + x(x - 13)$

$x^2 - x + = 0$

x

$x^2 - x + = 0$

x

$x^2 + x - = 0$

x

$x^2 - x - = 0$

x

$x =$ $x =$

$x =$ $x =$

$x =$ $x =$

$x =$ $x =$

9) $x^2 + (x + 2)^2 = 172$

$x^2 + x - = 0$

x

$x^2 - \frac{11}{6} - \frac{5}{3} = 0$

$x^2 - x - = 0$

x

$(3x + 2)(2x - 5) = 0$

$(x + 4)(x - 1) = 0$

$(x - 4)(x - 1) = 0$

$(x - 9)(x + 2) = 0$

$(x - 10)(x - 4) = 0$

$(x - 14)(x + 12) = 0$

$x =$ $x =$

$x = --$ $x = -$

Utilizando el trinomio más simplificado de cada uno de los ejercicios anteriores, resuelve usando la fórmula de la ecuación cuadrática:

11) $b =$ $\rightarrow \frac{a - (\pm\sqrt{(\)^2 - 4ac})}{2a}$ $= \frac{\pm\sqrt{-}}{\pm} = \frac{\pm}{\pm} \rightarrow x = \frac{+}{-} = - =$
 $c =$

12) $b =$ $\rightarrow \frac{a - (\pm\sqrt{(\)^2 - 4ac})}{2a}$ $= \frac{\pm\sqrt{-}}{\pm} = \frac{\pm}{\pm} \rightarrow x = \frac{+}{-} = - =$
 $c =$

13) $b =$ $\rightarrow \frac{a - (\pm\sqrt{(\)^2 - 4ac})}{2a}$ $= \frac{\pm\sqrt{-}}{\pm} = \frac{\pm\sqrt{-i}}{\pm} \rightarrow x = \frac{+\sqrt{-i}}{-\sqrt{-i}} =$
 $c =$

14) $b =$ $\rightarrow \frac{a - (\pm\sqrt{(\)^2 - 4ac})}{2a}$ $= \frac{\pm\sqrt{-}}{\pm} = \frac{\pm}{\pm} \rightarrow x = \frac{+}{-} = - =$
 $c =$

15) $b =$ $\rightarrow \frac{a - (\pm\sqrt{(\)^2 - 4ac})}{2a}$ $= \frac{\pm\sqrt{-}}{\pm} = \frac{\pm}{\pm} \rightarrow x = \frac{+}{-} = - =$
 $c =$

16) $b =$ $\rightarrow \frac{a - (\pm\sqrt{(\)^2 - 4ac})}{2a}$ $= \frac{\pm\sqrt{-}}{\pm} = \frac{\pm}{\pm} \rightarrow x = \frac{+}{-} = - =$
 $c =$

17) $b =$ $\rightarrow \frac{a - (\pm\sqrt{(\)^2 - 4ac})}{2a}$ $= \frac{\pm\sqrt{+}}{\pm} = \frac{\pm}{\pm} \rightarrow x = \frac{+}{-} = - =$
 $c =$

18) $b =$ $\rightarrow \frac{a - (\pm\sqrt{(\)^2 - 4ac})}{2a}$ $= \frac{\pm\sqrt{+}}{\pm} = \frac{\pm}{\pm} \rightarrow x = \frac{+}{-} = - =$
 $c =$

19) $b =$ $\rightarrow \frac{a - (\pm\sqrt{(\)^2 - 4ac})}{2a}$ $= \frac{\pm\sqrt{+}}{\pm} = \frac{\pm}{\pm} \rightarrow x = \frac{+}{-} = - =$
 $c =$

20) $b =$ $\rightarrow \frac{a - (\pm\sqrt{(\)^2 - 4ac})}{2a}$ $= \frac{\pm\sqrt{+}}{\pm} = \frac{\pm}{\pm} \rightarrow x = \frac{+}{-} = - =$
 $c =$