Departamento de Matemáticas 1º Bachillerato

6 - Ecuaciones de segundo grado



1. p016e01 - Resuelve las ecuaciones:

(a) $x^2 + 6 = 0$

Sol: \emptyset

(b) $x^2 - 9 = 0$

Sol: $\{-3,3\}$

(c) $x^2 + 3x = 0$

Sol: $\{-3,0\}$

(d) $3x^2 - 11x = 0$

Sol: $\{0, \frac{11}{3}\}$

- (e) $4x^2 32x = 0$
- 2. p016e02 Resuelve las ecuaciones:
 - (a) $(2x^2 + 11x) 6 = 0$

Sol: $\left\{-6, \frac{1}{2}\right\}$

(b) $(x^2 - 10x) + 25 = 0$

Sol: {5}

(c) $(x^2 + x) + 1 = 0$

Sol: ∅

- (d) $(x^2 2x) 1 = 0$
- 3. p016e03 Resuelve las ecuaciones:

(a)
$$-x(x-2) + 9 = 4x + 6$$

Sol: {0,8}

(f) $5x^2 = 0$

Sol: {0}

(g) $12x^2 - 18 = 0$

Sol: $\left\{-\frac{\sqrt{6}}{2}, \frac{\sqrt{6}}{2}\right\}$

(h) 3(-x+1)(x+1) = 3

Sol: {0}

(i) $3(x^2-2)=21$

Sol: $\{-3,3\}$

Sol: $\{1+\sqrt{2}, -\sqrt{2}+1\}$

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

Sol: $\left\{-2, \frac{1}{3}\right\}$

(f) $(4x^2 - 4x) + 1 = 0$

Sol: $\left\{\frac{1}{2}\right\}$

(g) $(2x^2 - 9x) + 11 = 0$

Sol: \emptyset

Sol: $\{-3,1\}$

(b)
$$-(x-1)(x+4) + 2(x^2-3) = x-2$$

Sol: $\{0,4\}$

(c)
$$x(x-1) - 2(x-3)(x-2) = 2$$

Sol: $\{2,7\}$

(d)
$$(2x^2 - 11x) + 12 = 0$$

Sol: $\left\{\frac{3}{2},4\right\}$

(e)
$$3(x-1)(x+2) = 0$$

Sol: $\{-2,1\}$

(f)
$$(x-2)^2 = 3$$

Sol:
$$\left\{-\sqrt{3}+2,\sqrt{3}+2\right\}$$

(g)
$$21x - 100 = -x + (x^2 + 21)$$

Sol: {11}

(h)
$$\frac{x}{3} \left(x - \frac{1}{6} \right) = x - 1$$

Sol: ∅

(i)
$$\left(-\frac{x}{3} + \frac{1}{3}\right) + \frac{2x^2+1}{2} = \frac{-x+1}{6}$$

Sol: \emptyset