



QUADRATIC EQUATIONS AND SYSTEMS TEST

2º ESO



Exercise 1: (3 ptos) Solve the following second degree equations:

a) $5x^2 - 80 = 0$

b) $10x^2 + 5x = 0$

c) $x^2 - 8x + 12 = 0$

d) $x^2 - 14x + 49 = 0$

e) $25x^2 - 4 = 0$

f) $2x^2 - 5x - 3 = 0$

Exercise 2: (1 pto) Work out $(x-4)^2 + 9 = 3x - 5$

Exercise 3: (1 pto) In an isosceles triangle the length of the base is 3 cm less than the length of the altitude, and the area measures 14 cm^2 . Find the base and the altitude

Exercise 4: (2.75 ptos) Solve the following systems using the indicated method:

a) $\left. \begin{array}{l} 2x - y = 7 \\ 5x + 2y = 13 \end{array} \right\}$ Substitution

b) $\left. \begin{array}{l} 2x + y = 1 \\ 5x + 2y = 5 \end{array} \right\}$ Elimination

c) $\left. \begin{array}{l} x + y = 3 \\ 3x - y = -7 \end{array} \right\}$ Graphically

Exercise 5: (1.5 ptos) Solve the following systems using the method that you prefer and then classify them:

a) $\left. \begin{array}{l} 3x - y = 5 \\ 6x - 2y = 1 \end{array} \right\}$

b) $\left. \begin{array}{l} 3x + 2y = 7 \\ 4x - 5y = 10 \end{array} \right\}$

Exercise 6: (0.75 ptos) A kilo of apricots and three kilos of cherries cost 11€, while two kilos of apricots and one kilo of cherries cost 7€. What's the price of a kilo of each product?

