



THIRD TERM GLOBAL TEST

2° ESO



Exercise 1: (2 pts) Solve the following second degree equations:

a) $5x^2 - 45 = 0$

b) $21x^2 - 7x = 0$

c) $x^2 + x - 20 = 0$

d) $3x^2 - 13x - 10 = 0$

Exercise 2: (3 pts) Solve the following systems of equations using the indicated method:

a) $\begin{cases} 5x - y = 3 \\ 3x + 2y = 7 \end{cases}$ Substitution

b) $\begin{cases} x - 3y = 4 \\ 3x - 9y = 7 \end{cases}$ Elimination

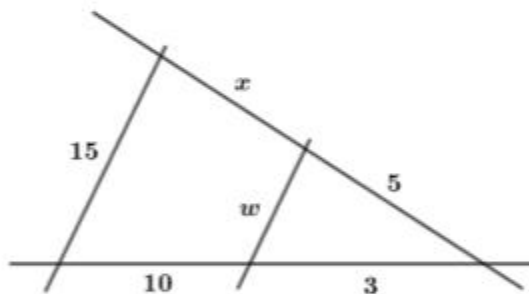
c) $\begin{cases} x - y = 3 \\ 2x + y = 12 \end{cases}$ Graphically

d) $\begin{cases} 2x + 3y = 1 \\ 5x + 4y = 13 \end{cases}$

Exercise 3: (1.5 pts) Find the sides of a right-angled triangle knowing that the hypotenuse measures $x+2$ and the other two sides have lengths of x and $x-2$ cm

Exercise 4: (1 pts) Solve the equation $\frac{(x-3)^2}{2} = 2x-6$

Exercise 5: (1.25 pts) Find the value of the unknowns:



Exercise 6: (1.25 pts) Find the area of the shadowed region between a regular hexagon with sides of 15 cm and a circle inscribed within

