



THIRD TERM GLOBAL TEST - 2° ESO



Exercise 1: (1.75 ptos) Solve and **classify** the following systems of equations using the substitution method:

$$\text{a) } \left. \begin{array}{l} 3x - 5y = 31 \\ x + 3y = 1 \end{array} \right\}$$

$$\text{b) } \left. \begin{array}{l} 5x - y = 1 \\ 10x - 2y = 2 \end{array} \right\}$$

Exercise 2: (1.75 ptos) Solve the following systems of equations using the elimination method:

$$\text{a) } \left. \begin{array}{l} 3x - y = 10 \\ 2x + 5y = 18 \end{array} \right\}$$

$$\text{b) } \left. \begin{array}{l} 3x + 2y = 1 \\ 4x - 3y = 2 \end{array} \right\}$$

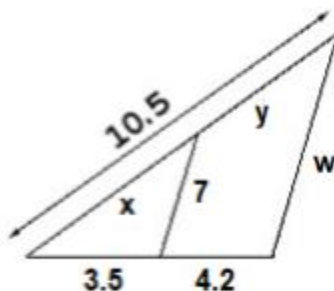
Exercise 3: (1 pto) Solve the following system of equations using the graphical method:

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

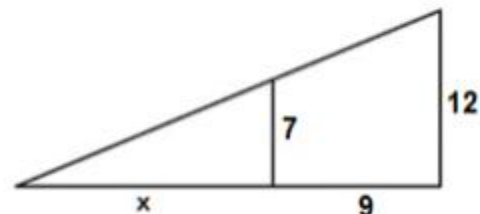
Exercise 4: (0.75 ptos) My ex-seagull has run away from me and now she wants to book some rooms in a hotel at the beach to spend the summer holidays with her whole family. If she books a double room and two triple rooms, she will have to pay 58€ a night, but if she books three double rooms and a triple room, she will have to pay 69€ a night. What's the price of each type of room?

Exercise 5: (1.75 ptos) Find the values of the indeterminates:

a)



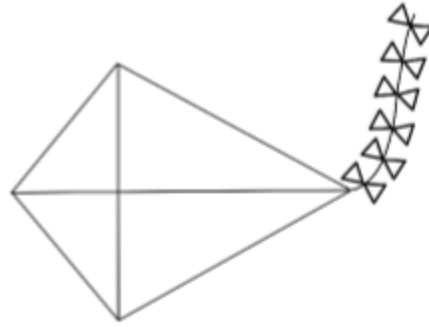
b)



Exercise 6: (1 pto) Find the sides of a right-angled triangle if they have lengths of x , $x+1$ and $x-7$ centimeters



Exercise 7: (1 pto) Find the area of a kite if its sides measure 12 cm and 20 cm and the shortest diagonal has a length of 16 cm



Exercise 8: (1 pto) Find the area of a regular hexagon if the side has a length of 8 cm

