

SYSTEMS OF EQUATIONS TEST - 2º ESO

Exercise 1: (3 ptos) Solve and **classify** the following systems of equations using the substitution method:

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

$$\text{b) } \left. \begin{array}{l} 4x - y = 13 \\ 3x + 2y = 7 \end{array} \right\}$$

$$\text{c) } \left. \begin{array}{l} 2x - 6y = 8 \\ 3x - 9y = 12 \end{array} \right\}$$

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

$$\text{a) } \left. \begin{array}{l} 2x + 5y = 5 \\ 4x - y = -23 \end{array} \right\}$$

$$\text{b) } \left. \begin{array}{l} 5x + 2y = 1 \\ 10x + 4y = 4 \end{array} \right\}$$

Exercise 3: (1.75 ptos) Solve using whatever method you prefer:

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

$$\text{b) } \left. \begin{array}{l} 5x - 4y = 15 \\ 2x - 3y = -1 \end{array} \right\}$$

Exercise 4: (1.25 ptos) Solve using the graphical method $\left. \begin{array}{l} 2x + y = 3 \\ x - y = 9 \end{array} \right\}$

Exercise 5: (1.25 ptos) My seagull went on a trip during the Easter holidays, she met a really smart, and handsome, he-seagull and it was love at first sight. They got married and had little seagulls!!

This time I am gonna feed them crabs, to celebrate the occasion. Before they started eating, I just had time to count a total of forty-one heads and three hundred and fifty-four legs (crabs and seagulls included). How many babies did my seagulls have?

Exercise 6: (1 pto) Last week I went to the supermarket, I bought 4 bricks of milk and one kilo of strawberries and I had to pay a total of 5€. This week I had to go again in order to buy 12 bricks of milk and 2 kilos of strawberries. This time I was charged 13€. Since I've lost both tickets, could you tell me the price of each thing?

