

ALGEBRA AND LINEAR EQUATIONS TEST - 1º ESO

Exercise 1: (1 point) Write the following statements using algebraic language:

- a) The consecutive of a number
- b) The half of a number plus seventeen
- c) The square of a number minus its double
- d) The product of three numbers

Exercise 2: (1 point) Indicate the coefficient, the literal part and the degree of the following monomials:

- a) $3x$
- b) $-\frac{5}{8}a^2b^3c^5$
- c) $-w$
- d) $12x^2yz^5$

Exercise 3: (1 points) Evaluate the following polynomials:

- a) $P(x) = x^3 - 5x^2 + 7x - 3$ when $x = 2$
- b) $Q(a, b) = a^2 - 2ab + b^2$ when $a = 2, b = -1$

Exercise 4: (1 points) Solve the following equations:

- a) $6x = 2$
- b) $\frac{x}{3} = 7$
- c) $7 - 2x = 3$
- d) $x + 2 = 1$

Exercise 5: (3 points) Solve the following equations:

- a) $3 - 5x + 7x - 9 = 6x - 2 - 3x - x - 4$
- b) $5(x - 4) = 2(3x + 5)$
- c) $10 - 3(3 + x) = 2x - (x - 4)$
- d) $5x - 2(4x - 7) = 9x - 4(3x + 1)$

Exercise 6: (0.75 points) Work out:

$$\frac{3x}{2} - \frac{5x}{4} = 5$$

Exercise 7: (0.75 points) The triple of a number minus seven equals the double of that number plus five. Find the number.

Exercise 8: (0.75 points) In a rectangle, the width is five cm longer than the length, and the perimeter is 66cm. Find its dimensions.

Exercise 9: (0.75 points) Un bolígrafo cuesta dos euros menos que un cuaderno. He comprado cuatro cuadernos y tres bolígrafos y me he gastado 29 euros. ¿Cuánto cuesta cada cosa?