ALGEBRA AND LINEAR EQUATIONS TEST

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?