SECOND TERM GLOBAL TEST

2º ESO

Exercise 1: (1.75 ptos) Work out

a) $x-\frac{2x-4}{3}=\frac{5-3x}{2}+\frac{1}{5}$ (0.75)

b) $\left(\frac{7}{5}-2\right)^{-2}+3^{-1}-\frac{7}{4}:\frac{3}{2}=$ (1)

Exercise 2: (0.75 ptos) Expand using quadratic multiplication formulas:

a) $(2x+5)^2=$ b) $(5x^3-2y^7)^2=$

Exercise 3: (1.25 ptos) Given the polynomials $P(x)=7x^2-2x+1$, $Q(x)=x^2-5x+7$ and $R(x)=3x-7$, work out:

a) $P-Q=$ b) $P\cdot R=$

Exercise 4: (2.5 ptos) Solve the following second degree equations:

a) $x^2-11x+28=0$ b) $7x^2-28=0$

c) $x^2+10x+25=0$ d) $3x^2+15x=0$

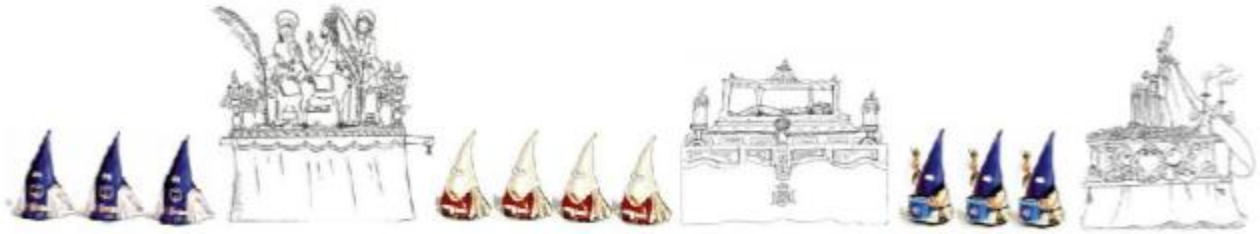
e) $6x^2+x-1=0$

Exercise 5: (1.5 ptos)

a) Take out common factors: $12x^5-3x^4-6x^3+21x^2=$ (0.5)

b) Work out: $\frac{(x+1)^2}{9}=4$ (1)

Exercise 6: (1.25 ptos) The Cofradía del Grial has a lot of nazarenos. And 3 pasos. Before the first paso we have two fifths of the nazarenos, and before the second paso, two sevenths of the remaining. And we have still 900 nazarenos left before the third paso. How many nazarenos does the cofradía have?



Exercise 7: (1 pto) The length of a rectangle is 6 cm less than its width and the area measures 40 cm^2. Find its dimensions.