EXAMEN GLOBAL PRIMERA EVALUACIÓN - 4º ESO - B

Exercise 1: Solve the following equations:

a) **(1 point)** $\sqrt{3x+4}-\sqrt{x+2}=2$

b) **(1 point)** $\dfrac{5}{x+1}+\dfrac{4}{x-1}=\dfrac{26}{x^2-1}$

Exercise 2: **(1 point)** Rationalize and simplify the following expressions:

a) $\dfrac{9\sqrt{12}}{\sqrt{3}}=$

b) $\dfrac{45}{\sqrt[3]{5}}=$

c) $\dfrac{\sqrt{8}-\sqrt{10}}{\sqrt{8}+\sqrt{10}}=$

Exercise 3: **(1 point)** Work out the value of the following expressions:

a) $7.21\cdot 10^{-5}+2.45\cdot 10^{-7}-5.35\cdot 10^{-3}=$

b) $(1.53\cdot 10^{-5})\cdot(2.47\cdot 10^{-2}):(7.2\cdot 10^{-9})=$

Exercise 4: **(1 points)** Round the golden ratio Φ to three significant figures and estimate both the absolute and relative errors.

Exercise 5: **(1 point)** Find the solution of the inequalities:

a) $x^3-5x^2+9x+9\le 0$

b) $x^2+5x+20\le 0$

Ejercicio 6: **(1 ptos)** Find the value of *m* so that when dividing the polynomial $P(x)=5x^3-x^2+mx-2$ by $(x+3)$ the remainder is 7

Exercise 7: **(3 points)** You better know what to do:

a) $\left.\begin{array}{l} xy=12 \\ x^2+2y^2=34 \end{array}\right\}$

b) $\left.\begin{array}{l} x+2y<0 \\ 3x+y\ge -5 \end{array}\right\}$

c) $\left.\begin{array}{l} x^2+3x-10\ge 0 \\ x^2-4<0 \end{array}\right\}$

GOOD LUCK !!!