GLOBAL 3ª EVALUACIÓN

1.- Calculate HCF and LCM of:

a) 240 and 30   b) 125 and 55

2.- Calculate (remember order of operations):

a) $[-5+3]\cdot(-2)-(+7)=$

b) $(2-3)^2-(-6)\cdot(-2)=$

3.- Arrange in ascending order:

$-3,23;\ 0,124;\ -3,235;\ 0;\ -3,1;\ 0,15;\ 0,257;\ 0,25;\ -3,07;\ -3,12$

4.- Round to the nearest hundredths:

a) 1,3377 $\rightarrow$	b) –211,0542 $\rightarrow$
c) –0,5242 $\rightarrow$	d) 15,8856 $\rightarrow$

5.- There are eight cans on the shelf. Each can contains three hundred twenty-five millilitres of tomato soup. Janet poured all the soup into one bowl. How many litres of soup does she have?

6.- Work out these operations:

$\dfrac{2}{5}\cdot\left(\dfrac{1}{2}-\dfrac{4}{3}\right)=$	$\dfrac{1}{5}+\dfrac{2}{3}\div\dfrac{5}{7}=$

7.- Laura bought 8/9 of a pound of chocolates and ate 1/3 of a pound. How much was left?

8.- 60 students participated in a survey about pets. 27 have a dog, 15 have a pet cat, and 18 students have no pets at all. What percentage of the students have a pet?

9.- 24 people can construct a house in 15 days. But the owner would like to finish the work in 12 days. How many workers should he employ?

10.- Solve and check:

a) $2(x-3)+4=3x-5$

b) $3x-(x+2)=x-1$

Maths 1st ESO

SOLUCIONES

1.- Calculate HCF and LCM of:

a) 240 and 30

240	2
120	2
60	2
30	2
15	3
5	5
1	

30	2
15	3
5	5
1	

$$240 = 2^4 \cdot 3 \cdot 5$$
$$30 = 2 \cdot 3 \cdot 5$$

$$HCF = 2 \cdot 3 \cdot 5 = 30$$
$$LCM = 2^4 \cdot 3 \cdot 5 = 240$$

b) 125 and 55

125	5
25	5
5	5
1	

55	5
11	11
1	

$$125 = 5^3$$
$$55 = 5 \cdot 11$$

$$HCF = 5$$
$$LCM = 5^3 \cdot 11 = 1375$$

2.- a) $\left[-5 + 3\right] \cdot (-2) - (+7) = (-2) \cdot (-2) - 7 = 4 - 7 = -3$

b) $(2 - 3)^2 - (-6) \cdot (-2) = (-1)^2 - 12 = 1 - 12 = -11$

3.- Arrange in ascending order:

$-3,23; \ 0,124; \ -3,235; \ 0; \ -3,1; \ 0,15; \ 0,257; \ 0,25; \ -3,07; \ -3,12$

$-3,235 < -3,23 < -3,12 < -3,1 < 0 < 0,124 < 0,15 < 0,25 < 0,257$

4.- Round to the nearest hundredths:

a) 1,3377 $\rightarrow$ 1,34	b) –211,0542 $\rightarrow$ -211,05
c) –0,5242 $\rightarrow$ -0,52	d) 15,8856 $\rightarrow$ 15,89

5.- There are eight cans on the shelf. Each can contains three hundred twenty-five millilitres of tomato soup. Janet poured all the soup into one bowl. How many litres of soup does she have?

$8 \cdot 325 = 2500 \ ml = 2.5 \ litres \ of \ soup$

6.- Work out these operations:

$\dfrac{2}{5} \cdot \left(\dfrac{1}{2} - \dfrac{4}{3}\right) = \dfrac{2}{5} \cdot \dfrac{3-8}{6} = \dfrac{2}{5} \cdot \dfrac{-5}{6} = -\dfrac{1}{3}$	$\dfrac{1}{5} + \dfrac{2}{3} \div \dfrac{5}{7} = \dfrac{1}{5} + \dfrac{14}{15} = \dfrac{3+14}{15} = \dfrac{17}{15}$

7.- Laura bought 8/9 of a pound of chocolates and ate 1/3 of a pound. How much was left?

$\dfrac{8}{9} - \dfrac{1}{3} = \dfrac{8}{9} - \dfrac{3}{9} = \dfrac{5}{9}$ It was left $\dfrac{5}{9}$ of a pound

Maths 1st ESO

8.- 60 students participated in a survey about pets. 27 have a dog, 15 have a pet cat, and 18 students have no pets at all. What percentage of the students have a pet?

$27 + 15 = 42$ students have a pet

$$\frac{42}{60} = \frac{x}{100} \rightarrow 42 \cdot 100 = 60x \rightarrow x = \frac{4200}{60} = 70$$

70% of students have a pet

9.- 24 people can construct a house in 15 days. But the owner would like to finish the work in 12 days. How many workers should he employ?

INVERSE 24 people _____ 15 days

X people _____ 12 days $\rightarrow \dfrac{x}{24} = \dfrac{15}{12} \rightarrow x = \dfrac{15 \cdot 24}{12} = 30$

He should employ 30 people

10.- Solve and check:

a) $2(x-3)+4 = 3x-5 \rightarrow 2x-6+4 = 3x-5 \rightarrow -6+4+5 = 3x-2x \rightarrow x=3$

$2(3-3)+4 = 3 \cdot 3 - 5 \rightarrow 0+4 = 9-5 \rightarrow 4=4$

b) $3x-(x+2) = x-1 \rightarrow 3x-x-2 = x-1 \rightarrow 3x-x-x = -1+2 \rightarrow x=1$

$3 \cdot 1 - (1+2) = 1-1 \rightarrow 3-3 = 0$