

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:

$$\frac{2}{5} \cdot \left(\frac{1}{2} - \frac{4}{3} \right) =$$

$$\frac{1}{5} + \frac{2}{3} \div \frac{5}{7} =$$

7.- Laura bought $\frac{8}{9}$ of a pound of chocolates and ate $\frac{1}{3}$ 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) $3x - (x+2) = x - 1$

SOLUCIONES

1.- Calculate HCF and LCM of:

a) 240 and 30

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

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

$$30 = 2 \cdot 3 \cdot 5$$

$$\text{HCF} = 2 \cdot 3 \cdot 5 = 30$$

$$\text{LCM} = 2^4 \cdot 3 \cdot 5 = 240$$

b) 125 and 55

125	5	55	5
25	5	11	11
5	5	1	
1			

$$125 = 5^3$$

$$55 = 5 \cdot 11$$

$$\text{HCF} = 5$$

$$\text{LCM} = 5^3 \cdot 11 = 1375$$

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

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?



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

6.- Work out these operations:

$\frac{2}{5} \cdot \left(\frac{1}{2} - \frac{4}{3} \right) = \frac{2}{5} \cdot \frac{3-8}{6} = \frac{2}{5} \cdot \frac{-5}{6} = -\frac{1}{3}$	$\frac{1}{5} + \frac{2}{3} \div \frac{5}{7} = \frac{1}{5} + \frac{14}{15} = \frac{3+14}{15} = \frac{17}{15}$
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7.- Laura bought $\frac{8}{9}$ of a pound of chocolates and ate $\frac{1}{3}$ of a pound. How much was left?

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

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

$$X \text{ people } ______ 12 \text{ days } \rightarrow \frac{x}{24} = \frac{15}{12} \rightarrow x = \frac{15 \cdot 24}{12} = 30$$

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

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