

EXAMEN NÚMEROS ENTEROS (INTEGERS)

1-2-2008

1.- Work out these operations:

a) $[-2-5]:7+3=$

b) $3 \times 2 - (-5) \times (-1) + 7 \times (-2) =$

c) $4 \times [(-2) - (-3)] + 14 : 7 =$

d) $2 \times (-3) + (-5) \times (+2) - (-7) \times 3 =$

e) $-2 - (-3) + 2 \times (-5) - (-4) =$

2.- Calculate HCF and LCM of:

a) 120 and 36

b) 550 and 60

3.- Arrange in ascending order:

 $-11, +8, 0, -10, -5, 6, +7, -13, 4$

4.- Arrange in descending order:

 $-12, +17, 1, -1, -6, 13, -7, -13, 14$

5.- Fill in the gaps:

a) $\sqrt{\quad}$ is ab) -4 is a numberc) $2 < 4$ 2 is 4d) $-1 > -5$ -1 is -5

SOLUCIONES

1.- Work out these operations:

a) $[-2-5]:7+3 = -7:7+3 = -1+3 = +2$

b) $3 \times 2 - (-5) \times (-1) + 7 \times (-2) = 6 - (+5) - 14 = 6 - 5 - 14 = -13$

c) $4 \times [(-2) - (-3)] + 14 : 7 = 4 \times [-2+3] + 2 = 4 \times 1 + 2 = 4 + 2 = +6$

d) $2 \times (-3) + (-5) \times (+2) - (-7) \times 3 = -6 + (-10) - (-21) = -16 + 21 = +5$

e) $-2 - (-3) + 2 \times (-5) - (-4) = -2 + 3 - 10 + 4 = -5$

2.- Calculate HCF and LCM of:

a) 120 and 36

120		2		36		2
60		2		18		2
30		2		9		3
15		3		3		3
5		5		1		
1						

$$120 = 2^3 \cdot 3 \cdot 5$$

$$36 = 2^2 \cdot 3^2$$

$$\text{HCF} = 2^2 \cdot 3 = 12$$

$$\text{LCM} = 2^3 \cdot 3^2 \cdot 5 = 360$$

b) 550 and 60

550		2		60		2
275		5		30		2
55		5		15		3
11		11		5		5
1				1		

$$550 = 2 \cdot 5^2 \cdot 11$$

$$60 = 2^2 \cdot 3 \cdot 5$$

$$\text{HCF} = 2 \cdot 5 = 10$$

$$\text{LCM} = 2^2 \cdot 3 \cdot 5^2 \cdot 11 = 3300$$

3.- Arrange in ascending order:

-11, +8, 0, -10, -5, 6, +7, -13, 4

Sol:

$$-13 < -11 < -10 < -5 < 0 < 4 < 6 < +7 < +8$$

4.- Arrange in descending order:

-12, +17, 1, -1, -6, 13, -7, -13, 14

Sol:

$$+17 > 14 > 13 > 1 > -1 > -6 > -7 > -12 > -13$$

5.- Fill in the gaps:

a) $\sqrt{\quad}$ is a **square root**b) - 4 is a **negative** numberc) $2 < 4$ 2 is **less than** 4d) $-1 > -5$ -1 is **greater than** -5