



COLEGIO ALMA'S  
bilingual school

APELLIDOS Y NOMBRE: Corrección Examen  
CURSO: 2° ESO N° 1° Evaluación  
FECHA: 11-12-2017 ASIGNATURA: Matemáticas

1) a)  $1 + 2(-2) - 3(-1) = 1 - 4 + 3 = \boxed{0}$

b)  $2 - 2[8 - 2(4 - 3)] - 32 : 8 = 2 - 2[8 - 2] - 4 = 2 - 12 - 4 = \boxed{-14}$

c)  $1 - 3[4(4 - 5 + 3) + 6] = 1 - 3[4(-2 + 6)] = 1 - 24 = \boxed{-23}$

d)  $2 + 3 - 5[1 - 1 \cdot 1] - 3 : 1 = 2 + 3 - 0 - 3 = \boxed{2}$

e)  $4 - [3 - (5 - 2 - 3) - 3] = 4 - [3 - 0 - 3] = \boxed{4}$

2)  $360 = 2^3 \cdot 3^2 \cdot 5$   
 $60 = 2^2 \cdot 3 \cdot 5$   
 $45 = 3^2 \cdot 5$   
 $80 = 2^4 \cdot 5$

MCD =  $\boxed{5}$

mcm =  $2^4 \cdot 3^2 \cdot 5 = \boxed{720}$

3) a)  $2 - \frac{3}{2} \cdot \left(\frac{15 - 14}{12}\right) - \frac{45}{45} = 2 - \frac{3}{2} \cdot \left(\frac{1}{12}\right) - 1 = 2 - \frac{1}{4} - 1 = \boxed{-\frac{1}{4}}$

b)  $\frac{1}{9} \cdot 9 - (16 - 18) : 2 + 1^2 = 1 + 1 + 1 = \boxed{3}$

c)  $\frac{20}{6} \cdot \frac{25}{8} - \left(\frac{16}{80}\right)^0 = \frac{125}{12} - 1 = \boxed{\frac{113}{12}}$

d)  $1 - \frac{1}{2} \cdot \left(\frac{6 - 3}{4}\right) - \frac{36}{72} = 1 - \frac{1}{2} \cdot \frac{3}{4} - \frac{1}{2} = 1 - \frac{3}{8} - \frac{1}{2} = \frac{6 - 4 - 3}{8} = \boxed{-\frac{1}{8}}$

e)  $1 + \frac{3}{4} \cdot \frac{5}{2} \cdot \frac{80}{45} - \left(\frac{2}{3}\right)^2 = 1 + \frac{10}{3} - \frac{4}{9} = \frac{9 + 30 - 4}{9} = \boxed{\frac{35}{9}}$

f)  $2 \cdot \left(\frac{1}{3}\right) + \frac{5}{3} : \left(\frac{1}{2}\right) - 1 = \frac{2}{3} + \frac{10}{3} - 1 = 4 - 1 = \boxed{3}$

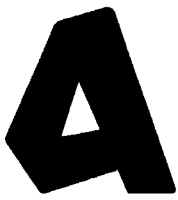
4)  $1'236 = \frac{1236 - 12}{990} = \frac{1224}{990} = \frac{408}{330} = \frac{136}{110} = \boxed{\frac{68}{55}}$

$1'09 = \frac{109 - 10}{90} = \frac{99}{90} = \boxed{\frac{11}{10}}$

$1'5 = \frac{15}{10} = \boxed{\frac{3}{2}}$

5) a)  $\frac{(2^3)^3 \cdot 3^2}{3^2 \cdot (2^3)^3} = \frac{2^9 \cdot 3^2}{3^2 \cdot 2^9} = \boxed{2^3} = 8$

b)  $\frac{2^6 \cdot 2^2 \cdot 3^2}{2^3 \cdot 3^3 \cdot 5^3} = \frac{2^8 \cdot 3^2}{2^3 \cdot 3^3 \cdot 5^3} = \boxed{\frac{2^5}{3 \cdot 5^3}}$



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6. a)  $\sqrt[4]{28.54} = 2 \cdot 2 \cdot 5 = \boxed{20}$

b)  $\sqrt[3]{2^3 \cdot 3^3} = 2 \cdot 3 = \boxed{6}$

7. 

A	Días
5	10
X	X

  
 $\frac{10}{X} = \frac{2}{5} \rightarrow 2X = 50 \rightarrow \boxed{X = 25 \text{ días}}$

8. 

min	apart
15	3
X	21

  
 $\frac{15}{X} = \frac{3}{21} \rightarrow 3X = 15 \cdot 21 \rightarrow \boxed{X = 105 \text{ min}}$

9. 

Televisores	min	Televisión
5	0	600
7	X	1400

  
 $\frac{6}{X} = \frac{7}{5} \cdot \frac{600}{1400}$   
 $\frac{6}{X} = \frac{7}{5} \cdot \frac{3}{7} \rightarrow \frac{6}{X} = \frac{3}{5}$   
 $3X = 30 \rightarrow \boxed{X = 10 \text{ min}}$