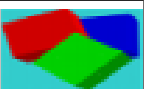


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Alumno/a:		UNIDAD 2. FRACCIONES II		Fecha: 4/12/2015

En esta prueba se valora el orden, la limpieza, y se espera ver los razonamientos y desarrollos de las preguntas

EJERCICIO 1. [1,5] Calcula.

a) m.c.m(36, 20, 30)

b) m.c.m(24, 48, 72)

c) m.c.m(35, 15, 49)

EJERCICIO 2.[3,0] Calcula.

a) $\frac{1}{3} + \frac{3}{4} + \frac{7}{12}$

b) $\frac{5}{18} + \frac{4}{9} - \frac{1}{2}$

c) $\frac{8}{21} + \frac{2}{7} - \frac{2}{3}$

EJERCICIO 3. [2,25] Calcula y simplifica.

a) $\frac{3}{7} \cdot 14$

b) $\frac{2}{5} : 4$

c) $\frac{7}{2} \cdot \frac{4}{(-7)}$

d) $\frac{3}{11} : \frac{(-5)}{11}$

e) $\frac{2}{3} \cdot \frac{9}{20}$

f) $\frac{4}{15} : \frac{2}{5}$

g) $\frac{6}{35} \cdot \frac{(-77)}{36}$

h) $\frac{(-48)}{55} : \frac{12}{11}$

i) $\frac{-3}{8} : \frac{28}{(-9)}$

EJERCICIO 4. [2,25] Calcula.

a) $\frac{5}{6} + \frac{3}{5} - \frac{21}{15}$

b) $\frac{5}{12} + \frac{3}{4} - \left(\frac{1}{6} + \frac{1}{2}\right)$

c) $6 + \left(\frac{4}{5} - \frac{2}{3}\right)$

EJERCICIO 5.[1,0] Ordena la fracción usando mínimo común múltiplo.

$\frac{21}{48}$ y $\frac{19}{36}$

Aprenda a multiplicar

Tabla del 1

$$\begin{aligned}1 \times 1 &= 1 \\1 \times 2 &= 2 \\1 \times 3 &= 3 \\1 \times 4 &= 4 \\1 \times 5 &= 5 \\1 \times 6 &= 6 \\1 \times 7 &= 7 \\1 \times 8 &= 8 \\1 \times 9 &= 9 \\1 \times 10 &= 10\end{aligned}$$

Tabla del 2

$$\begin{aligned}2 \times 1 &= 2 \\2 \times 2 &= 4 \\2 \times 3 &= 6 \\2 \times 4 &= 8 \\2 \times 5 &= 10 \\2 \times 6 &= 12 \\2 \times 7 &= 14 \\2 \times 8 &= 16 \\2 \times 9 &= 18 \\2 \times 10 &= 20\end{aligned}$$

Tabla del 3

$$\begin{aligned}3 \times 1 &= 3 \\3 \times 2 &= 6 \\3 \times 3 &= 9 \\3 \times 4 &= 12 \\3 \times 5 &= 15 \\3 \times 6 &= 18 \\3 \times 7 &= 21 \\3 \times 8 &= 24 \\3 \times 9 &= 27 \\3 \times 10 &= 30\end{aligned}$$

Tabla del 4

$$\begin{aligned}4 \times 1 &= 4 \\4 \times 2 &= 8 \\4 \times 3 &= 12 \\4 \times 4 &= 16 \\4 \times 5 &= 20 \\4 \times 6 &= 24 \\4 \times 7 &= 28 \\4 \times 8 &= 32 \\4 \times 9 &= 36 \\4 \times 10 &= 40\end{aligned}$$

Tabla del 5

$$\begin{aligned}5 \times 1 &= 5 \\5 \times 2 &= 10 \\5 \times 3 &= 15 \\5 \times 4 &= 20 \\5 \times 5 &= 25 \\5 \times 6 &= 30 \\5 \times 7 &= 35 \\5 \times 8 &= 40 \\5 \times 9 &= 45 \\5 \times 10 &= 50\end{aligned}$$

Tabla del 6

$$\begin{aligned}6 \times 1 &= 6 \\6 \times 2 &= 12 \\6 \times 3 &= 18 \\6 \times 4 &= 24 \\6 \times 5 &= 30 \\6 \times 6 &= 36 \\6 \times 7 &= 42 \\6 \times 8 &= 48 \\6 \times 9 &= 54 \\6 \times 10 &= 60\end{aligned}$$

Tabla del 7

$$\begin{aligned}7 \times 1 &= 7 \\7 \times 2 &= 14 \\7 \times 3 &= 21 \\7 \times 4 &= 28 \\7 \times 5 &= 35 \\7 \times 6 &= 42 \\7 \times 7 &= 49 \\7 \times 8 &= 56 \\7 \times 9 &= 63 \\7 \times 10 &= 70\end{aligned}$$

Tabla del 8

$$\begin{aligned}8 \times 1 &= 8 \\8 \times 2 &= 16 \\8 \times 3 &= 24 \\8 \times 4 &= 32 \\8 \times 5 &= 40 \\8 \times 6 &= 48 \\8 \times 7 &= 56 \\8 \times 8 &= 64 \\8 \times 9 &= 72 \\8 \times 10 &= 80\end{aligned}$$

Tabla del 9

$$\begin{aligned}9 \times 1 &= 9 \\9 \times 2 &= 18 \\9 \times 3 &= 27 \\9 \times 4 &= 36 \\9 \times 5 &= 45 \\9 \times 6 &= 54 \\9 \times 7 &= 63 \\9 \times 8 &= 72 \\9 \times 9 &= 81 \\9 \times 10 &= 90\end{aligned}$$

Tabla del 10

$$\begin{aligned}10 \times 1 &= 10 \\10 \times 2 &= 20 \\10 \times 3 &= 30 \\10 \times 4 &= 40 \\10 \times 5 &= 50 \\10 \times 6 &= 60 \\10 \times 7 &= 70 \\10 \times 8 &= 80 \\10 \times 9 &= 90 \\10 \times 10 &= 100\end{aligned}$$

SOLUCIONARIO

EJERCICIO 1. [1,5] Calcula.

Solución:

a) $m.c.m(36, 20, 30) = 2^2 \cdot 3^2 \cdot 5 = 180$

b) $m.c.m(24, 48, 72) = 2^4 \cdot 3^2 = 144$

c) $m.c.m(35, 15, 49) = 3 \cdot 5 \cdot 7^2 = 1715$

EJERCICIO 2.[3,0] Calcula.

Solución:

a) $\frac{1}{3} + \frac{3}{4} + \frac{7}{12} = \frac{4}{12} + \frac{9}{12} + \frac{7}{12} = \frac{20}{12}$ b) $\frac{5}{18} + \frac{4}{9} - \frac{1}{2} = \frac{5}{18} + \frac{8}{18} - \frac{9}{18} = \frac{4}{18}$

c) $\frac{8}{21} + \frac{2}{7} - \frac{2}{3} = \frac{5}{21} + \frac{6}{21} - \frac{14}{21} = \frac{-3}{21}$

EJERCICIO 3. [2,25] Calcula y simplifica.

Solución:

a) $\frac{3}{7} \cdot 14 = \frac{42}{7}$

b) $\frac{2}{5} : 4 = \frac{2}{20} = \frac{1}{10}$

c) $\frac{7}{2} \cdot \frac{4}{(-7)} = -\frac{4}{2} = -2$

d) $\frac{3}{11} : \frac{(-5)}{11} = -\frac{3}{5}$

e) $\frac{2}{3} \cdot \frac{9}{20} = \frac{18}{60} = \frac{3}{10}$

f) $\frac{4}{15} : \frac{2}{5} = \frac{20}{30} = \frac{2}{3}$

g) $\frac{6}{35} \cdot \frac{(-77)}{36} = \frac{-396}{1260} = \frac{-11}{30}$

h) $\frac{(-48)}{55} : \frac{12}{11} = \frac{-528}{660} = \frac{-4}{5}$

i) $\frac{-3}{8} : \frac{28}{(-9)} = \frac{27}{224}$

EJERCICIO 4. [2,25] Calcula.

Solución:

$$\begin{aligned} \text{a) } \frac{5}{6} + \frac{3}{5} - \frac{21}{15} &= \frac{25}{30} + \frac{18}{30} - \frac{42}{30} = \frac{43}{30} - \frac{42}{30} = \\ &= \frac{1}{30} \end{aligned}$$

$$\begin{aligned} \text{b) } \frac{5}{12} + \frac{3}{4} - \left(\frac{1}{6} + \frac{1}{2}\right) &= \frac{5}{12} + \frac{9}{12} - \left(\frac{2}{12} + \frac{6}{12}\right) = \\ &= \frac{14}{12} - \frac{8}{12} = \frac{6}{12} = \frac{1}{2} \end{aligned}$$

$$\begin{aligned} \text{c) } 6 + \left(\frac{4}{5} - \frac{2}{3}\right) &= \frac{90}{15} + \left(\frac{12}{15} - \frac{10}{15}\right) = \frac{90}{15} + \frac{2}{15} = \\ &= \frac{92}{15} \end{aligned}$$

EJERCICIO 5.[2,0] Ordena la fracción usando mínimo común múltiplo.

Solución:a) $\frac{21}{48} < \frac{19}{36}$