

$$01. a) \frac{1}{4} + \frac{5}{4} = \frac{6:2}{4:2} = \frac{3}{2}$$

$$b) \frac{6}{3} + \frac{2}{3} = \frac{8}{3}$$

$$c) \frac{1}{4} + \frac{1}{2} = \frac{1+2}{4} = \frac{3}{4}$$

$$d) \frac{2}{8} + \frac{9}{16} = \frac{4+9}{16} = \frac{13}{16}$$

$$e) \frac{2}{3} + \frac{12}{5} = \frac{5 \cdot 2 + 3 \cdot 12}{15} = \frac{10 + 36}{15} = \frac{46}{15}$$

$$f) \frac{3}{8} - \frac{1}{4} = \frac{9 \cdot 3 - 8 \cdot 1}{56} = \frac{21 - 8}{56} = \frac{13}{56}$$

$$g) \frac{4}{9} - \frac{1}{9} = \frac{6:3}{9:3} = \frac{2}{3}$$

$$h) \frac{42}{9} - 2 = \frac{42-18}{9} = \frac{24:3}{9:3} = \frac{8}{3}$$

$$i) \frac{8}{5} - \frac{3}{2} = \frac{2 \cdot 8 - 5 \cdot 3}{10} = \frac{16 - 15}{10} = \frac{1}{10}$$

$$j) \frac{5}{3} \cdot \frac{9}{2} \cdot \frac{1}{3} = \frac{45:9}{18:9} = \frac{5}{2}$$

$$k) \frac{\cancel{12}^2}{\cancel{5}_3} \cdot \frac{\cancel{18}^3}{\cancel{3}_4} \cdot \frac{2}{4} = 4$$

$$l) \frac{\cancel{25}^5}{\cancel{3}_4} \cdot \frac{\cancel{12}^3}{\cancel{5}_4} \cdot \frac{3}{4} = 15$$

$$m) 6 : \frac{36}{7} = 6 \cdot \frac{7}{36} = \frac{7}{6}$$

$$n) 27 : \frac{3}{4} = 27 \cdot \frac{4}{3} = 36$$

$$o) \frac{13}{9} : \frac{169}{3} = \frac{\cancel{13}_3}{9 \cdot 3} \cdot \frac{3}{\cancel{169}_{13}} = \frac{1}{13 \cdot 3} = \frac{1}{39}$$

02. $1 + \frac{1}{2} = \frac{3}{2} \text{ L} \rightarrow$ uma jarra tem $\frac{3}{2}$ litros de água

$\frac{3}{2} \text{ L} \rightarrow x \text{ copos}$



$\frac{1}{4} \rightarrow 1 \text{ copo}$

$\frac{x}{4} = \frac{3}{2} \quad x = \frac{12}{2} = 6 \text{ copos}$

03. $\frac{2}{5} \cdot 30 = 12$ alunos tiraram acima de 8

$\frac{1}{3} \cdot 30 = 10$ alunos 5-8

$30 - 12 - 10 = 8$ alunos \rightarrow abaixo de 5

04. $1 - \frac{2}{5} = \frac{3}{5} \rightarrow$ faltam preencher os lugares

$\frac{3}{5} \cdot 705 = 705 \cdot \frac{3}{5} = 2115$ pessoas

05. 1 hora \rightarrow 60 minutos

$\frac{1}{4}$ de 60 = $\frac{1}{4} \cdot 60 = 15$ minutos

1 hora e 15 minutos diários

06. $30 \cdot 20 = 600$ recibo que serão distribuídos

$\frac{1}{2} \cdot 600 = 300$ (1.º colocado)

$\frac{1}{3} \cdot 600 = 200$ (2.º colocado)

$$600 - 300 - 200 = 100 \text{ (3º colocado)}$$

(B)

07. $1 - \frac{3}{5} = \frac{2}{5}$ da parte do mercado para reparar

$$\frac{2}{5} \cdot \frac{1}{4} = \frac{2}{20} \text{ da mercado para comissatos}$$

$$R/\frac{2}{20}$$

08. $\frac{5}{8} \cdot \frac{4}{15} = \frac{5}{30}$

$$R/\frac{5}{30}$$

09. a) $\frac{\frac{1}{2} \cdot \left(\frac{5-1}{6-2}\right)}{\left(\frac{1}{4} + \frac{1}{3}\right) \cdot \frac{1}{2}} = \frac{\cancel{\frac{1}{2}} \cdot \left(\frac{5-3}{6}\right)}{\left(\frac{3+4}{12}\right) \cdot \cancel{\frac{1}{2}}} = \frac{\frac{2}{6}}{\frac{4}{12}} \cdot \frac{2}{8} \cdot \frac{\cancel{2}}{4} = \frac{4}{3}$

$$b) \left[1 - \left(\frac{3}{4} + \frac{1}{5} \right) \right] : \frac{3}{40} =$$

$$= \left[1 - \left(\frac{15+4}{20} \right) \right] : \frac{3}{40} =$$

$$= \left[1 - \frac{19}{20} \right] : \frac{3}{40}$$

$$\left[\frac{20-19}{20} \right] : \frac{3}{40} = \frac{1}{20} : \frac{3}{40} = \frac{1}{20} \cdot \frac{40}{3} = \frac{2}{3}$$

10. $6800 \cdot \frac{1}{4} = 1700$

$$\begin{array}{r} 1360 \\ 6800 \cdot \frac{2}{5} = 2720 \end{array}$$

TOTAL GASTO = 4420

↓

SOBRA PARA OS PEDREIROS : $6800 - 4420 = 2380$ reais

11.	TRIGO	CHOCOLATE	AÇÚCAR	LEITE
	$\frac{9}{4}$	$\frac{4}{3}$	$\frac{13}{4} = \frac{7}{4}$	$\frac{5}{6}$
	$\frac{27}{12}$	$\frac{16}{12}$	$\frac{21}{12}$	$\frac{10}{12}$

LEITE < CHOCOLATE < AÇÚCAR < TRIGO

(B)

12. $y \rightarrow$ homens $\rightarrow \frac{1}{4}y \rightarrow$ homens com EM
 $x \rightarrow$ mulheres $\rightarrow \frac{2}{3}x \rightarrow$ mulheres com EM

$$\frac{1}{4}y = \frac{2}{3}x \quad \frac{y}{y+x} = \frac{y}{y+\frac{3y}{8}} = \frac{y}{\frac{8y+3y}{8}} = \frac{y}{\frac{11y}{8}} = y \cdot \frac{8}{11y} = \frac{8}{11}$$

$$3y = 8x$$

$$x = \frac{3y}{8}$$

(E)

13.	$\frac{3}{5}$	$\frac{1}{4}$	$\frac{2}{3}$	$\frac{5}{9}$
	$\frac{108}{180}$	$\frac{45}{180}$	$\frac{120}{180}$	$\frac{100}{180}$

$$\frac{1}{4} < \frac{5}{9} < \frac{3}{5} < \frac{2}{3}$$

(A)

14. $75 \cdot \frac{2}{3} = 50$

$\perp \cdot 50 = 5 \rightarrow$ possui 5 dias internado

10

$$15 - 5 = 10$$

(E)

15.

$$1 - \frac{1}{3} = \frac{2}{3}$$

1.º dia
↳ o que resta

$$\frac{2}{3} \cdot \frac{1}{3} = \frac{2}{9}$$

2.º dia

$$1 - \frac{1}{3} - \frac{2}{9} = \frac{9 - 3 - 2}{9} = \frac{4}{9}$$

(D)