

6B

$$\left(\frac{8-3}{12} : \frac{9+1}{6} \right)^2 : \left(\frac{3+2}{10} \right)^4 =$$

$$= \left(\frac{5}{12} : \frac{10}{6} \right)^2 : \left(\frac{1}{2} \right)^4 =$$

$$= \left(\frac{5^1}{\cancel{12}^2} \cdot \frac{\cancel{10}^1}{\cancel{10}^2} \right)^2 : \left(\frac{1}{2} \right)^4 = \frac{1}{4^2} : \frac{1}{2^4} = 1$$

1A

$$5x = 2$$

$$x = \frac{2}{5} = 0.4$$

$$2x + 1 = 0$$

$$2x = -1$$

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

$$3x - 2 = 6$$

$$3x = 6 + 2$$

$$3x = 8$$

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

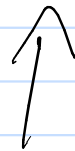
$$x = -\frac{2}{3}$$

$$-3x = 2$$

$$4x + 3 = 7$$

$$x = 1$$

$$4 - 3x = 6 \quad \rightarrow \quad -3x + 4 = 6$$



2A

$$\left(x \cdot \frac{3}{2} + \frac{1}{4} + \frac{1}{3}\right) \cdot \frac{1}{8} = 6$$

$$\left(\frac{3}{2}x + \frac{3+4}{12}\right) \cdot 8 = 6$$

$$\left(\frac{3}{2}x + \frac{7}{12}\right) \cdot 8 = 6$$

$$12x + \frac{7}{3} = 6$$

$$12x + \frac{14}{3} = 6 \quad ax + b = c$$

$$12x = 6 - \frac{14}{3}$$

$$12x = \frac{4}{3}$$

$$x = \frac{4}{3} \cdot \frac{1}{12}$$

$$x = \frac{1}{9}$$

3A

euro che Giulio aveva inizialmente: X

$$X - 23 - 14 + 30 - 11 = 12$$

$$X - 18 = 12$$

$$X = 12 + 18$$

$$X = 30$$

GIULIA AVEVA INTASCA 30€

4A distanza percorsa in 60 min: $d_1 = 24$

tempo impiegato e percorsa 24 Km: t_1

$$t_1 = 60 \text{ min}$$

distanza $d_2 = 100 \text{ Km}$

t_2

$$t_2 : d_2 = t_1 : d_1$$

$$\frac{t_2}{100} = \frac{60}{24}$$

$$\frac{1}{100} \cdot t_2 = \frac{60}{24}$$

$$\frac{1}{100} t_2 = \frac{5}{2}$$

$$t_2 = \frac{5}{2} \cdot 100 = 250 \text{ min}$$

$t_2 = 4 \text{ ore e } 10 \text{ min}$

5A

$$\left[\left(\frac{1}{7} - \frac{2}{4} \right) \cdot \left(\frac{3}{2} - \frac{1}{3} \right) \right] \cdot \frac{5}{6} + \frac{1}{4} - \frac{3}{2} +$$

$$- \left[1.5 \cdot \left(2 + 0.25 \right) - \frac{2}{3} \right] - \frac{1}{6} =$$

$$= \left[\left(\frac{1}{7} - \frac{2}{4} \right) \left(\frac{3}{2} - \frac{1}{3} \right) \right] \cdot \frac{5}{6} + \frac{1}{4} - \frac{3}{2} +$$

$$- \left[\frac{3}{2} \left(2 + \frac{1}{4} \right) - \frac{2}{3} \right] - \frac{1}{6}$$

$$1.5 = \frac{15}{10} = \frac{3}{2}$$

$$0.25 = \frac{25}{100} = \frac{1}{4}$$

$$\left[\frac{4-14}{28} \cdot \frac{8-2}{6} \right] \cdot \frac{6}{5} + \left(-\frac{3}{4} \right) +$$

$$- \left[3 + \frac{3}{8} - \frac{2}{3} \right] - \frac{1}{6} =$$

$$= -\frac{10}{28} \cdot \frac{6}{6} \cdot \frac{6}{5} - \frac{5}{4} - \frac{72+9-16}{24} - \frac{1}{6} =$$

$$= -\frac{1}{2} - \frac{5}{4} - \frac{65}{24} - \frac{1}{6} = -\frac{12+30+65+4}{24} = -\frac{111}{24} = -\frac{37}{8}$$

5A x

$$-\frac{1}{2} - \frac{5}{4} = -\frac{2+5}{4} = -\frac{7}{4}$$

GA

$$\left[\begin{array}{c} \left(\frac{1}{2} - \frac{4}{9} \right) \\ \hline \left(\frac{1}{18} + \frac{1}{6} \right) \end{array} \right]^2 \cdot \left(\frac{3}{10} + \frac{1}{5} \right)^4 =$$

$$= \left[\begin{array}{c} \frac{9-8}{18} \\ \hline \frac{1+3}{18} \end{array} \right]^2 \cdot \left(\frac{3+2}{10} \right)^4 =$$

$$= \left[\begin{array}{c} \frac{1}{18} \\ \hline \frac{4}{18} \end{array} \right]^2 \cdot \left(\frac{5}{10} \right)^4 =$$

$$= \left[\begin{array}{c} 1 \cdot 18 \\ \hline \cancel{18} \cdot 4 \\ \end{array} \right]^2 \cdot \frac{1}{2^4} = \left(\frac{1}{4} \right)^2 \cdot 2^4 = \frac{1}{4^2} \cdot 2^4 =$$

$$= \frac{1}{(2^2)^2} \cdot 2^4 = \frac{1}{2^4} \cdot 2^4 = \underline{1}$$

7A

$$\frac{18}{4}$$

$$\frac{18}{4} = \frac{36}{8} = \frac{72}{16} = \left(\frac{9}{2} \right)$$

8A

$$\frac{3}{5}$$

$$\frac{35}{6} \times \frac{24}{7}$$

$$\frac{1}{4}$$

$$\frac{7}{8}$$

$$12 \quad 5$$

$$\frac{3}{5} \times \frac{1}{4}$$

$$18 \quad 25$$
$$\frac{3}{5} \times \frac{5}{6}$$

$\frac{1}{4}$	$\frac{3}{5}$	$\frac{4}{7}$	$\frac{5}{6}$	$\frac{7}{8}$
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$$21 \quad 20$$
$$\frac{3}{5} \times \frac{4}{7}$$

$$40 \quad 42$$

$$\frac{5}{6} \times \frac{7}{8}$$

3A

n	A	B
0	0	0
1	35	30
2	70	60
3	105	90

mcm 30 e 35

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

$$35 = 5 \cdot 7$$

$$\text{mcm} = 2 \cdot 3 \cdot 5 \cdot 7 = 30 \cdot 7 = 210$$

$$t = 5 \text{ h} = 5 \cdot 60 = 300 \text{ min}$$

210 min

1 volle rolo

$$\left[\left(\frac{1}{7} - \frac{2}{4} \right) \left(\frac{3}{2} - \frac{1}{3} \right) \right] \cdot \frac{5}{6} + \frac{1}{4} - \frac{3}{2} - \left[1,5 \cdot \left(2 + 0,25 \right) - \frac{2}{3} \right] - \frac{1}{6}$$

$$= \left[\frac{4-14}{28} \cdot \frac{9-2}{6} \right] \cdot \frac{6}{5} + \frac{3-18-2}{12} - \left[\frac{3}{2} \left(2 + \frac{1}{4} \right) - \frac{2}{3} \right] =$$

$$= \frac{-10^2}{28} \cdot \frac{7}{6} \cdot \frac{6}{5} + \frac{-17}{12} - \left[3 + \frac{3}{8} - \frac{2}{3} \right]$$

$$= -\frac{2}{4} - \frac{17}{12} - \frac{72+9-16}{24} =$$

$$= -\left(\frac{12+39+65}{24} \right) = -\frac{111}{24} = -\frac{37}{8}$$

#1 LAB

1)

$$2x = 5$$

$$x = \frac{5}{2}$$

$$3x + 1$$

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

$$2x - 3 = 6 \rightarrow 2x = 9$$

$$x = \frac{9}{2}$$

$$4x + 2 = 8 \rightarrow 4x = 6$$

$$x = \frac{3}{2}$$

$$1 - 2x = 3 \quad -2x = 2$$

$$x = -1$$

2)

$$\left(x \frac{3}{4} + \frac{2}{3} + \frac{1}{2}\right) 6 = 6$$

$$\frac{3}{4}x = -\frac{2}{3} - \frac{1}{2} + 1$$

$$\frac{3}{4}x = -\frac{4+3}{6} + 1$$

$$\frac{3}{4}x = -\frac{7}{6} + 1$$

$$x = \frac{4}{3} \left(-\frac{1}{6}\right) = -\frac{2}{9}$$

3B

$$x - 48 - 16 + 25 - 12 = 10$$

$$x + 25 = 10 + 48 + 16 + 12$$

$$x + 25 = 86$$

$$x = 86 - 25 = 61$$

4B

$$x : 100 = 1 : 24$$

$$x = \frac{100}{24} = \frac{25}{6} = 4,16\dots$$

5B

$$\left[\left(\frac{1}{5} - \frac{2}{3} \right) : \left(\frac{4}{5} - 2 \right) \right] \cdot \frac{6}{7} - \frac{4}{5} - \left[\frac{1}{3} + \frac{2}{5} - \left(-\frac{1}{4} \right) \cdot \frac{2}{3} \right] + \frac{11}{30}$$

$$= \left[\frac{3-10}{15} : \frac{4-10}{5} \right] \cdot \frac{6}{7} - \frac{4}{5} + \frac{11}{30} - \left[\frac{1}{3} + \frac{2}{5} + \frac{1}{6} \right] =$$

$$= \frac{\overset{1}{\cancel{17}}}{\overset{1}{\cancel{15}}} \cdot \left(\overset{1}{\cancel{8}} \right) \cdot \frac{\overset{1}{\cancel{6}}}{\overset{1}{\cancel{7}}} - \frac{4}{5} + \frac{11}{30} - \frac{2}{6} - \frac{2}{5} - \frac{1}{6} =$$

$$= \frac{1}{3} - \frac{6}{5} - \frac{\cancel{8}}{\cancel{2}} + \frac{11}{30} = \frac{10-36-15+11}{30} =$$

$$= \frac{21-51}{30} = \frac{-30}{30} = \boxed{-1}$$

B

$$\frac{1}{3} - \frac{4}{5} = \frac{5-12}{15} = \boxed{-\frac{7}{15}}$$

7B

$$\frac{4}{18} = \frac{8}{36} = \frac{2}{9} = \frac{6}{27} = \frac{10}{45}$$

8B

$$\frac{3}{4} \quad \frac{5}{7} \quad \frac{2}{9} \quad \frac{1}{3} \quad \frac{5}{8}$$

21

$$\frac{3}{4} \times \frac{5}{7}$$

20

$$\frac{3}{7} \times \frac{2}{9}$$

15

6

$$\frac{2}{9} \times \frac{1}{3}$$

2

$$\frac{5}{7} < \frac{3}{4}$$

$$\frac{1}{3} \times \frac{5}{7}$$

$$\frac{2}{9} < \frac{1}{3} < \frac{5}{7} < \frac{3}{4}$$

$$\frac{5}{7} \times \frac{5}{8}$$

$$\frac{2}{9} < \frac{1}{3} < \frac{5}{8} < \frac{5}{7} < \frac{3}{4}$$

8B

n	128	96	72
2	64	48	36
3	/		
4	32	24	18

MCD

$$128 = 2^6$$

$$96 = 3 \cdot 16 = 3 \cdot 2^4$$

$$72 = 8 \cdot 9 = 2^3 \cdot 3^2$$

$$MCD = 2^3 = 8 \text{ cm}$$