

Numeri relativi. Espressioni con le frazioni. Completati di soluzione guidata.

Signed Numbers

1. $-\frac{5}{2} - \frac{3}{2} + 1 + \frac{4}{3} - \frac{1}{3} + 2$

[0]

[soluzione](#)

2. $-3 + \frac{8}{4} - \frac{1}{2} - \left(6 - \frac{1}{4}\right) + \frac{1}{4}$

[-7]

[soluzione](#)

3. $1 - \left(\frac{6}{10} - \frac{2}{5} + \frac{7}{10}\right) - \frac{1}{2}$

 $\left[-\frac{2}{5}\right]$ [soluzione](#)

4. $-\frac{2}{3} + \frac{1}{6} - \left(-\frac{1}{4} + \frac{1}{2}\right) + \frac{3}{8}$

 $\left[-\frac{3}{8}\right]$ [soluzione](#)

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

 $\left[\frac{31}{6}\right]$ [soluzione](#)

6. $-\frac{5}{7} - \left(\frac{3}{7} - \frac{1}{35} + 1\right) - \left(\frac{6}{7} - 2 - \frac{1}{5}\right)$

 $\left[-\frac{27}{35}\right]$ [soluzione](#)

7. $\left[3 \cdot \left(-\frac{2}{3}\right) - 2 \cdot \left(\frac{3}{4}\right)\right] : \left[2 \cdot \left(-\frac{2}{3}\right) - \frac{3}{4}\right]$

 $\left[\frac{42}{25}\right]$ [soluzione](#)

8. $\frac{23}{5} - \frac{13}{5} + \left(\frac{2}{5} + \frac{1}{4} + \frac{17}{20}\right) - \left(\frac{9}{2} - \frac{3}{5}\right)$

 $\left[-\frac{2}{5}\right]$ [soluzione](#)

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

 $\left[\frac{1}{7}\right]$ [soluzione](#)

10. $\frac{3}{8} - \left[\frac{6}{10} - \left(\frac{7}{10} - 1 - \frac{6}{8}\right) + \left(-\frac{7}{20} + \frac{1}{2}\right) - 1\right] + \frac{17}{40}$

[0]

[soluzione](#)

11. $\frac{13}{4} - \frac{29}{6} - \left(-\frac{1}{3} + \frac{1}{2} + 1\right) + \frac{3}{8} - \left(\frac{5}{3} - \frac{5}{4}\right) - \left(\frac{7}{3} - \frac{5}{8}\right)$

 $\left[-\frac{9}{2}\right]$ [soluzione](#)

12. $1 - \left[\frac{4}{5} + \left(-\frac{2}{21} - \frac{8}{14}\right) - \left(\frac{4}{3} - \frac{11}{5} + 1\right)\right] + \frac{15}{6} - \left(3 + \frac{7}{9} - \frac{5}{3}\right) - \frac{7}{18}$

[1]

[soluzione](#)

13. $\left[\left(\frac{13}{3} + \frac{3}{2}\right) : \left(-\frac{5}{3}\right)\right] \cdot \left(\frac{6}{7} - 1\right)$ $\left[\frac{3}{2}\right]$
[soluzione](#)
14. $1 + \left[\left(\frac{1}{2} - \frac{3}{4}\right) : \left(-\frac{1}{2}\right)\right] \cdot \left(\frac{1}{6} - \frac{3}{9}\right) \cdot \frac{9}{2} - \frac{5}{8}$ [0]
[soluzione](#)
15. $\left[\frac{3}{2} - \left(-\frac{4}{3} + \frac{1}{7}\right) + \left(-\frac{5}{2} + \frac{7}{3}\right) - \left(-\frac{5}{6} + \frac{7}{3}\right)\right] - \frac{22}{21}$ $\left[-\frac{1}{42}\right]$
[soluzione](#)
16. $-\left[\left(\frac{1}{3} - 2\right) \cdot \left(\frac{5}{2} - \frac{7}{6}\right) - \left(1 - \frac{4}{3}\right) \cdot \left(-1 - \frac{1}{3}\right)\right] : \left(-\frac{16}{3}\right)$ $\left[-\frac{1}{2}\right]$
[soluzione](#)
17. $\left\{\left[-\frac{3}{2} - 2 : \left(-\frac{3}{4} + \frac{1}{6}\right)\right] \cdot \left(-\frac{2}{3} + 2\right) - 1\right\} : \left(-\frac{1}{6}\right) + 3$ $\left[-\frac{45}{7}\right]$
[soluzione](#)
18. $\left\{\left[-\frac{3}{2} - 2 : \left(-\frac{3}{4} + \frac{1}{6}\right)\right] \cdot \left(-\frac{2}{3} + 2\right) - 1\right\} \cdot \left(-\frac{1}{11}\right) + 3$ $\left[\frac{20}{7}\right]$
[soluzione](#)
19. $-\left(1 - \frac{1}{9}\right) - \left[\frac{4}{7} - \frac{3}{14} - \left(-\frac{1}{2}\right)\right] + \frac{8}{9} - \left[\frac{9}{5} + \left(-\frac{1}{2}\right) - \left(+\frac{1}{3}\right) + \left(-\frac{5}{6}\right)\right] + \frac{6}{7}$ $\left[-\frac{2}{15}\right]$
[soluzione](#)
20. $\frac{5}{4} - \left[\frac{4}{3} - \left(\frac{3}{2} - \frac{5}{6} + \frac{1}{2}\right) + \frac{5}{4}\right] - \left(2 - \frac{7}{6}\right)$ [-1]
[soluzione](#)
21. $\left[\left(\frac{2}{3} - 4\right) \cdot \left(\frac{3}{5} - \frac{1}{2}\right) - \left(\frac{4}{3} + \frac{3}{4}\right) \cdot \left(-\frac{1}{5}\right) \cdot \left(1 + \frac{3}{5} - \frac{5}{2}\right)\right] - \left(\frac{1}{3} - \frac{1}{8}\right) : \left(-\frac{1}{2}\right)$ $\left[-\frac{7}{24}\right]$
[soluzione](#)
22. $-\frac{19}{3} - \left[\left(1 - \frac{2}{3}\right) : \left(1 - \frac{1}{2}\right) - \frac{3}{7} + \left(-\frac{9}{7} + \frac{3}{7}\right) \cdot \left(-\frac{1}{2}\right) - \frac{1}{3}\right] - \left(-\frac{1}{6}\right) : \left(-\frac{1}{2}\right)$ [-7]
[soluzione](#)
23. $-1 - \left\{-\frac{3}{4} - \left[-\left(\frac{1}{7} - \frac{1}{3} - \frac{10}{21}\right) - \left(\frac{3}{4} - \frac{1}{3} - \frac{3}{2}\right)\right]\right\} \cdot \left(1 - \frac{1}{2}\right) - \left(\frac{5}{4} - \frac{1}{2}\right)$ $\left[-\frac{1}{2}\right]$
[soluzione](#)

24. $-1 - \left\{ -\frac{3}{4} - \left[-\left(\frac{1}{7} - \frac{1}{3} - \frac{10}{21} \right) - \left(\frac{3}{4} - \frac{1}{3} - \frac{2}{3} \right) \right] \right\} \cdot \left(1 - \frac{1}{2} \right) - \left(\frac{5}{4} - \frac{1}{2} \right)$ $\left[-\frac{11}{12} \right]$
[soluzione](#)
25. $\frac{7}{20} - \left\{ -\frac{7}{5} - \left[-\left(\frac{1}{2} + \frac{1}{2} \right) - \left(-\frac{3}{2} - \frac{1}{8} \right) + \left(-\frac{8}{5} + \frac{2}{3} \right) \right] - \frac{5}{24} \right\} - \frac{3}{5}$ $\left[\frac{21}{20} \right]$
[soluzione](#)
26. $\left[\left(\frac{3}{4} - \frac{1}{20} - \frac{7}{5} \right) - \left(3 - \frac{5}{2} - \frac{8}{5} \right) \right] + \left(-\frac{1}{10} \right) - \frac{1}{10} \cdot \left(-\frac{5}{2} \right)$ $\left[\frac{9}{20} \right]$
[soluzione](#)
27. $\frac{1}{2} - \left(-\frac{1}{3} \right) + \left\{ \left[\left(-\frac{4}{3} - 4 \right) + \left(+\frac{16}{3} \right) + \frac{1}{5} \right] - \left(-\frac{1}{3} - 1 \right) \right\} + \left(\frac{1}{9} - \frac{7}{15} + \frac{1}{45} \right) - \frac{1}{2}$ $\left[\frac{23}{15} \right]$
[soluzione](#)
28. $-\frac{5}{4} - \left[-\frac{4}{3} - \left(\frac{3}{2} - \frac{5}{6} + \frac{1}{2} \right) + \frac{5}{4} \right] - \left(2 - \frac{7}{6} \right) \cdot \left(-\frac{6}{5} \right)$ $[1]$
[soluzione](#)
29. $-\left(-\frac{7}{6} - \frac{3}{2} + \frac{5}{4} \right) \cdot \left(\frac{1}{17} - 1 \right) - \left(\frac{1}{3} - 1 \right) + \left(\frac{1}{2} - 1 \right)$ $\left[-\frac{7}{6} \right]$
[soluzione](#)
30. $\frac{2 \cdot (9 - 5)}{3} - \frac{2 \cdot 9 + 3}{5} - 3 - \frac{2 \cdot (-9 - 25)}{15}$ $[0]$
[soluzione](#)
31. $\left\{ \left(-5 + \frac{3}{8} - \frac{1}{8} + \frac{9}{2} \right) : \left(-\frac{4}{25} + \frac{3}{20} - \frac{1}{25} \right) \right\} - \frac{11}{2}$ $\left[-\frac{1}{2} \right]$
[soluzione](#)
32. $1 + \left(-\frac{2}{3} - 1 \right) - \left(1 - \frac{1}{2} \right) + \left(1 - \frac{1}{4} \right)$ $\left[-\frac{5}{12} \right]$
[soluzione](#)
33. $\frac{2}{5} : \left(-\frac{1}{2} \right) - \left[-\frac{33}{12} : \left(\frac{1}{2} - \frac{7}{3} \right) - 2 \right] - \frac{2}{5}$ $\left[-\frac{7}{10} \right]$
[soluzione](#)
34. $\frac{1}{36} - \left\{ \frac{1}{9} + \left[-\frac{2}{3} \cdot \left(\frac{1}{2} - 1 \right) - \frac{1}{2} \right] + \frac{1}{3} \cdot \left(1 - \frac{5}{3} \right) \right\} \cdot \left(-1 - \frac{3}{2} \right)$ $\left[-\frac{2}{3} \right]$
[soluzione](#)
35. $\left(\frac{4}{7} + \frac{1}{2} - \frac{3}{4} \right) \left(-\frac{4}{3} \right) - \left(\frac{5}{4} + \frac{3}{2} \right) \left(-\frac{1}{2} - \frac{3}{2} \right) \left(\frac{9}{11} - 1 \right)$ [soluzione](#)
36. $1 - \left[\frac{25}{16} - \frac{9}{16} \right] \cdot \left(-\frac{4}{9} \right) + \left(-\frac{1}{2} \right)$ $\left[\frac{17}{18} \right]$

Esercizi e soluzioni

$$\begin{aligned}
 & -\frac{5}{2} - \frac{3}{2} + 1 + \frac{4}{3} - \frac{1}{3} + 2 = \\
 & = \frac{-5-3}{2} + \frac{4-1}{3} + 2 + 1 = \\
 & = -\frac{8}{2} + \frac{3}{3} + 3 = \\
 & = -4 + 1 + 3 = \\
 & = -4 + 4 = 0
 \end{aligned}$$

Oppure

$$\begin{aligned}
 & -\frac{5}{2} - \frac{3}{2} + 1 + \frac{4}{3} - \frac{1}{3} + 2 = \\
 & = \frac{-15-9+6+8-2+12}{6} = \\
 & = \frac{-24+14-2+12}{6} = \\
 & = \frac{-10-2+12}{6} = \frac{0}{6} = 0
 \end{aligned}$$

$$\begin{aligned}
 & -3 + \frac{8}{4} - \frac{1}{2} - \left(6 - \frac{1}{4}\right) + \frac{1}{4} = \\
 & = -3 + 2 - \frac{1}{2} - \left(\frac{24-1}{4}\right) + \frac{1}{4} = \\
 & = -1 - \frac{1}{2} - \frac{23}{4} + \frac{1}{4} = \\
 & = \frac{-4-2-23+1}{4} = \\
 & = -\frac{28}{4} = -7
 \end{aligned}$$

$$\begin{aligned} & 1 - \left(\frac{6}{10} - \frac{2}{5} + \frac{7}{10} \right) - \frac{1}{2} = \\ & = 1 - \left(\frac{6 - 4 + 7}{10} \right) - \frac{1}{2} = \\ & = 1 - \left(+\frac{9}{10} \right) - \frac{1}{2} = \\ & = 1 - \frac{9}{10} - \frac{1}{2} = \\ & = \frac{10 - 9 - 5}{10} = \\ & = -\frac{4}{10} = -\frac{2}{5} \end{aligned}$$

$$\begin{aligned} & -\frac{2}{3} + \frac{1}{6} - \left(-\frac{1}{4} + \frac{1}{2} \right) + \frac{3}{8} \\ & = -\frac{2}{3} + \frac{1}{6} - \left(\frac{-1 + 2}{4} \right) + \frac{3}{8} = \\ & = -\frac{2}{3} + \frac{1}{6} - \left(+\frac{1}{4} \right) + \frac{3}{8} = \\ & = -\frac{2}{3} + \frac{1}{6} - \frac{1}{4} + \frac{3}{8} = \\ & = \frac{-16 + 4 - 6 + 9}{24} = \\ & = \frac{13 - 22}{24} = \\ & = -\frac{9}{24} = -\frac{3}{8} \end{aligned}$$

$$\begin{aligned} & 1 + \frac{5}{3} + \left(\frac{1}{2} - \frac{7}{6} + 2 \right) - \left(\frac{1}{6} - \frac{4}{3} \right) = \\ & = 1 + \frac{5}{3} + \left(\frac{3 - 7 + 12}{6} \right) - \left(\frac{1 - 8}{6} \right) = \\ & = 1 + \frac{5}{3} + \left(+\frac{8}{6} \right) - \left(-\frac{7}{6} \right) = \\ & = 1 + \frac{5}{3} + \frac{4}{3} + \frac{7}{6} = \\ & = \frac{6 + 10 + 8 + 7}{6} = \\ & = \frac{31}{6} \end{aligned}$$

$$\begin{aligned} & -\frac{5}{7} - \left(\frac{3}{7} - \frac{1}{35} + 1 \right) - \left(\frac{6}{7} - 2 - \frac{1}{5} \right) = \\ & = -\frac{5}{7} - \left(\frac{15 - 1 + 35}{35} \right) - \left(\frac{30 - 70 - 7}{35} \right) = \\ & = -\frac{5}{7} - \left(+\frac{49}{35} \right) - \left(-\frac{47}{35} \right) = \\ & = -\frac{5}{7} - \frac{49}{35} + \frac{47}{35} = \\ & = \frac{-25 - 49 + 47}{35} = \\ & = -\frac{27}{35} \end{aligned}$$

$$\begin{aligned}& \left[3 \cdot \left(-\frac{2}{3} \right) - 2 \cdot \left(\frac{3}{4} \right) \right] : \left[2 \cdot \left(-\frac{2}{3} \right) - \frac{3}{4} \right] = \\& = \left(-2 - \frac{3}{2} \right) : \left(-\frac{4}{3} - \frac{3}{4} \right) = \\& = \left(\frac{-4-3}{2} \right) : \left(\frac{-16-9}{12} \right) = \\& = \left(-\frac{7}{2} \right) \cdot \left(-\frac{12}{25} \right) = \\& = \frac{42}{25}\end{aligned}$$

$$\begin{aligned}& \frac{23}{5} - \frac{13}{5} + \left(\frac{2}{5} + \frac{1}{4} + \frac{17}{20} \right) - \left(\frac{9}{2} - \frac{3}{5} \right) = \\& = \frac{23}{5} - \frac{13}{5} + \left(\frac{8+5+17}{20} \right) - \left(\frac{45-6}{10} \right) = \\& = \frac{23}{5} - \frac{13}{5} + \left(+\frac{30}{20} \right) - \left(+\frac{39}{10} \right) = \\& = \frac{23}{5} - \frac{13}{5} + \frac{3}{2} - \frac{39}{10} = \\& = \frac{46-26+15-39}{10} = \\& = \frac{61-65}{10} = \\& = -\frac{4}{10} = -\frac{2}{5}\end{aligned}$$

$$\begin{aligned}& \left[\left(\frac{4}{3} - 2 \right) \cdot \left(-\frac{3}{4} \right) \right] : \left[\left(-\frac{1}{2} - 4 \right) : \left(-2 + \frac{5}{7} \right) \right] = \\& = \left[\left(\frac{4-6}{3} \right) \cdot \left(-\frac{3}{4} \right) \right] : \left[\left(\frac{-1-8}{2} \right) : \left(\frac{-14+5}{7} \right) \right] = \\& = \left[\left(-\frac{2}{3} \right) \cdot \left(-\frac{3}{4} \right) \right] : \left[\left(-\frac{9}{2} \right) : \left(-\frac{9}{7} \right) \right] = \\& = \left[+\frac{1}{2} \right] : \left[+\frac{7}{2} \right] = \\& = \left[+\frac{1}{2} \right] \cdot \left[+\frac{2}{7} \right] = +\frac{1}{7}\end{aligned}$$

$$\begin{aligned}& \frac{3}{8} - \left[\frac{6}{10} - \left(\frac{7}{10} - 1 - \frac{6}{8} \right) + \left(-\frac{7}{20} + \frac{1}{2} \right) - 1 \right] + \frac{17}{40} = \\& = \frac{3}{8} - \left[\frac{3}{5} - \left(\frac{28-40-30}{40} \right) + \left(\frac{-7+10}{20} \right) - 1 \right] + \frac{17}{40} = \\& = \frac{3}{8} - \left[\frac{3}{5} - \left(-\frac{42}{40} \right) + \left(+\frac{3}{20} \right) - 1 \right] + \frac{17}{40} = \\& = \frac{3}{8} - \left[\frac{3}{5} + \frac{21}{20} + \frac{3}{20} - 1 \right] + \frac{17}{40} = \\& = \frac{3}{8} - \left[\frac{12+21+3-20}{20} \right] + \frac{17}{40} = \\& = \frac{3}{8} - \frac{16}{20} + \frac{17}{40} = \\& = \frac{15-32+17}{40} = \frac{0}{40} = 0\end{aligned}$$

$$\begin{aligned}& \frac{13}{4} - \frac{29}{6} - \left(-\frac{1}{3} + \frac{1}{2} + 1 \right) + \frac{3}{8} - \left(\frac{5}{3} - \frac{5}{4} \right) - \left(\frac{7}{3} - \frac{5}{8} \right) = \\&= \frac{13}{4} - \frac{29}{6} - \left(\frac{-2+3+6}{6} \right) + \frac{3}{8} - \left(\frac{20-15}{12} \right) - \left(\frac{56-15}{24} \right) = \\&= \frac{13}{4} - \frac{29}{6} - \left(+\frac{7}{6} \right) + \frac{3}{8} - \left(+\frac{5}{12} \right) - \left(+\frac{41}{24} \right) = \\&= \frac{13}{4} - \frac{29}{6} - \frac{7}{6} + \frac{3}{8} - \frac{5}{12} - \frac{41}{24} = \\&= \frac{78-116-28+9-10-41}{24} = \\&= \frac{87-195}{24} = \\&= -\frac{108}{24} = -\frac{9}{2}\end{aligned}$$

$$\begin{aligned}
& 1 - \left[\frac{4}{5} + \left(-\frac{2}{21} - \frac{8}{14} \right) - \left(\frac{4}{3} - \frac{11}{5} + 1 \right) \right] + \frac{15}{6} - \left(3 + \frac{7}{9} - \frac{5}{3} \right) - \frac{7}{18} \\
&= 1 - \left[\frac{4}{5} + \left(-\frac{2}{21} - \frac{8}{14} \right) - \left(\frac{4}{3} - \frac{11}{5} + 1 \right) \right] + \frac{15^5}{6_2} - \left(3 + \frac{7}{9} - \frac{5}{3} \right) - \frac{7}{18} = \\
&= 1 - \left[\frac{4}{5} + \left(-\frac{2}{21} - \frac{8}{14} \right) - \left(\frac{4}{3} - \frac{11}{5} + 1 \right) \right] + \frac{15^5}{6_2} - \left(3 + \frac{7}{9} - \frac{5}{3} \right) - \frac{7}{18} = \\
&= 1 - \left[\frac{4}{5} + \left(-\frac{2}{21} - \frac{8^4}{14_7} \right) - \left(\frac{4}{3} - \frac{11}{5} + 1 \right) \right] + \frac{5}{2} - \left(3 + \frac{7}{9} - \frac{5}{3} \right) - \frac{7}{18} = \\
&= 1 - \left[\frac{4}{5} + \left(\frac{-2-12}{21} \right) - \left(\frac{20-33+15}{15} \right) \right] + \frac{5}{2} - \left(\frac{27+7-15}{9} \right) - \frac{7}{18} = \\
&= 1 - \left[\frac{4}{5} + \left(-\frac{14^2}{21_3} \right) - \left(+\frac{2}{15} \right) \right] + \frac{5}{2} - \left(\frac{19}{9} \right) - \frac{7}{18} = \\
&= 1 - \left[\frac{4}{5} - \frac{2}{3} - \frac{2}{15} \right] + \frac{5}{2} - \frac{19}{9} - \frac{7}{18} = \\
&= 1 - \left[\frac{12-10-2}{15} \right] + \frac{5}{2} - \frac{19}{9} - \frac{7}{18} = \\
&= 1 + \frac{5}{2} - \frac{19}{9} - \frac{7}{18} = \\
&= \frac{18+45-38-7}{18} = \frac{18^1}{18_1} = 1
\end{aligned}$$

$$\begin{aligned}
& \left[\left(\frac{13}{3} + \frac{3}{2} \right) : \left(-\frac{5}{3} \right) \right] \cdot \left(\frac{6}{7} - 1 \right) = \\
&= \left[\frac{26+9}{6} \cdot \left(-\frac{3}{5} \right) \right] \cdot \left(\frac{6-7}{7} \right) = \\
&= \left[\frac{35}{6} \cdot \left(-\frac{3}{5} \right) \right] \cdot \left(-\frac{1}{7} \right) = \\
&= \left[-\frac{7}{2} \right] \cdot \left(-\frac{1}{7} \right) = +\frac{1}{2}
\end{aligned}$$

$$\begin{aligned}
 & 1 + \left[\left(\frac{1}{2} - \frac{3}{4} \right) : \left(-\frac{1}{2} \right) \right] \cdot \left(\frac{1}{6} - \frac{3}{9} \right) \cdot \frac{9}{2} - \frac{5}{8} = \\
 & = 1 + \left[\left(\frac{1}{2} - \frac{3}{4} \right) : \left(-\frac{1}{2} \right) \right] \cdot \left(\frac{1}{6} - \frac{3}{9} \right) \cdot \frac{9}{2} - \frac{5}{8} = \\
 & = 1 + \left[\left(-\frac{1}{4} \right) : \left(-\frac{1}{2} \right) \right] \cdot \left(\frac{3-6}{18} \right) \cdot \frac{9}{2} - \frac{5}{8} = \\
 & = 1 + \left[+\frac{1}{2} \right] \cdot \left(-\frac{3}{18} \right) \cdot \frac{9}{2} - \frac{5}{8} = \\
 & = 1 - \frac{3}{8} - \frac{5}{8} = \\
 & = \frac{8-3-5}{8} = 0
 \end{aligned}$$

$$\begin{aligned}
 & \left[\frac{3}{2} - \left(-\frac{4}{3} + \frac{1}{7} \right) + \left(-\frac{5}{2} + \frac{7}{3} \right) - \left(-\frac{5}{6} + \frac{7}{3} \right) \right] - \frac{22}{21} = \\
 & \left[\frac{3}{2} - \left(-\frac{28+3}{21} \right) + \left(\frac{-15+14}{6} \right) - \left(\frac{-5+14}{6} \right) \right] - \frac{22}{21} = \\
 & \left[\frac{3}{2} - \left(-\frac{25}{21} \right) + \left(-\frac{1}{6} \right) - \left(+\frac{9^3}{6_2} \right) \right] - \frac{22}{21} = \\
 & \left[\frac{3}{2} + \frac{25}{21} - \frac{1}{6} - \frac{3}{2} \right] - \frac{22}{21} = \\
 & \frac{50-7}{42} - \frac{22}{21} = \\
 & \frac{43}{42} - \frac{22}{21} = \frac{43-44}{42} = -\frac{1}{42}
 \end{aligned}$$

$$\begin{aligned}& - \left[\left(\frac{1}{3} - 2 \right) \cdot \left(\frac{5}{2} - \frac{7}{6} \right) - \left(1 - \frac{4}{3} \right) \cdot \left(-1 - \frac{1}{3} \right) \right] : \left(-\frac{16}{3} \right) = \\& = - \left[\left(-\frac{5}{3} \right) \cdot \left(\frac{15-7}{6} \right) - \left(-\frac{1}{3} \right) \cdot \left(-\frac{4}{3} \right) \right] \cdot \left(-\frac{3}{16} \right) = \\& = - \left[\left(-\frac{20}{9} \right) - \left(+\frac{4}{9} \right) \right] \cdot \left(-\frac{3}{16} \right) = \\& = - \left[-\frac{20}{9} - \frac{4}{9} \right] \cdot \left(-\frac{3}{16} \right) = \\& = - \left[-\frac{24}{9} \right] \cdot \left(-\frac{3}{16} \right) = \\& = - \left[-\frac{8}{3} \right] \cdot \left(-\frac{3}{16} \right) = -\frac{1}{2}\end{aligned}$$

$$\begin{aligned}& \left\{ \left[-\frac{3}{2} - 2 : \left(-\frac{3}{4} + \frac{1}{6} \right) \right] \cdot \left(-\frac{2}{3} + 2 \right) - 1 \right\} : \left(-\frac{1}{6} \right) + 3 = \\&= \left\{ \left[-\frac{3}{2} - 2 : \left(\frac{-9+2}{12} \right) \right] \cdot \left(\frac{-2+6}{3} \right) - 1 \right\} \cdot (-6) + 3 = \\&= \left\{ \left[-\frac{3}{2} - 2 \cdot \left(-\frac{12}{7} \right) \right] \cdot \left(+\frac{4}{3} \right) - 1 \right\} \cdot (-6) + 3 = \\&= \left\{ \left[-\frac{3}{2} + \frac{24}{7} \right] \cdot \left(+\frac{4}{3} \right) - 1 \right\} \cdot (-6) + 3 = \\&= \left\{ \left[\frac{-21+48}{14} \right] \cdot \left(+\frac{4}{3} \right) - 1 \right\} \cdot (-6) + 3 = \\&= \left\{ \left[+\frac{27}{14} \right] \cdot \left(+\frac{4^2}{3} \right) - 1 \right\} \cdot (-6) + 3 = \\&= \left\{ +\frac{18}{7} - 1 \right\} \cdot (-6) + 3 = \\&= \left\{ \frac{18-7}{7} \right\} \cdot (-6) + 3 = \\&= \left\{ +\frac{11}{7} \right\} \cdot (-6) + 3 = \\&= -\frac{66}{7} + 3 = \\&= \frac{-66+21}{7} = -\frac{45}{7}\end{aligned}$$

$$\begin{aligned}
& \left\{ \left[-\frac{3}{2} - 2 : \left(-\frac{3}{4} + \frac{1}{6} \right) \right] \cdot \left(-\frac{2}{3} + 2 \right) - 1 \right\} \cdot \left(-\frac{1}{11} \right) + 3 = \\
& = \left\{ \left[-\frac{3}{2} - 2 : \left(\frac{-9+2}{12} \right) \right] \cdot \left(\frac{4}{3} \right) - 1 \right\} \cdot \left(-\frac{1}{11} \right) + 3 = \\
& = \left\{ \left[-\frac{3}{2} - 2 : \left(-\frac{7}{12} \right) \right] \cdot \left(\frac{4}{3} \right) - 1 \right\} \cdot \left(-\frac{1}{11} \right) + 3 = \\
& = \left\{ \left[-\frac{3}{2} - 2 : \left(-\frac{7}{12} \right) \right] \cdot \left(\frac{4}{3} \right) - 1 \right\} \cdot \left(-\frac{1}{11} \right) + 3 = \\
& = \left\{ \left[-\frac{3}{2} + \frac{24}{7} \right] \cdot \left(\frac{4}{3} \right) - 1 \right\} \cdot \left(-\frac{1}{11} \right) + 3 = \\
& = \left\{ \left[\frac{-21+48}{14} \right] \cdot \left(\frac{4}{3} \right) - 1 \right\} \cdot \left(-\frac{1}{11} \right) + 3 = \\
& = \left\{ \left[\frac{{}^9 27}{{}_7 14} \right] \cdot \left(\frac{4^2}{3_1} \right) - 1 \right\} \cdot \left(-\frac{1}{11} \right) + 3 = \\
& = \left\{ \frac{18}{7} - 1 \right\} \cdot \left(-\frac{1}{11} \right) + 3 = \\
& = \left\{ \frac{11}{7} \right\} \cdot \left(-\frac{1}{11} \right) + 3 = \\
& = -\frac{1}{7} + 3 \\
& = \frac{-1+21}{7} = \frac{20}{7}
\end{aligned}$$

$$\begin{aligned}& -\left(1-\frac{1}{9}\right)-\left[\frac{4}{7}-\frac{3}{14}-\left(-\frac{1}{2}\right)\right]+\frac{8}{9}-\left[\frac{9}{5}+\left(-\frac{1}{2}\right)-\left(+\frac{1}{3}\right)+\left(-\frac{5}{6}\right)\right]+\frac{6}{7}=\\& =-\left(\frac{9-1}{9}\right)-\left[\frac{4}{7}-\frac{3}{14}+\frac{1}{2}\right]+\frac{8}{9}-\left[\frac{9}{5}-\frac{1}{2}-\frac{1}{3}-\frac{5}{6}\right]+\frac{6}{7}=\\& =-\left(+\frac{8}{9}\right)-\left[\frac{8-3+7}{14}\right]+\frac{8}{9}-\left[\frac{54-15-10-25}{30}\right]+\frac{6}{7}=\\& =-\frac{8}{9}-\left[+\frac{12}{14}\right]+\frac{8}{9}-\left[\frac{54-15-10-25}{30}\right]+\frac{6}{7}= \text{nota che } -\frac{8}{9} + \frac{8}{9} \text{ sono opposti}\\& =-\frac{12^6}{14_7}-\left[+\frac{4}{30}\right]+\frac{6}{7}= \text{nota che } -\frac{6}{7} + \frac{6}{7} \text{ sono opposti}\\& =-\frac{6}{7}-\frac{2}{15}+\frac{6}{7}=\\& =-\frac{2}{15}\end{aligned}$$

$$\begin{aligned} & \frac{5}{4} - \left[\frac{4}{3} - \left(\frac{3}{2} - \frac{5}{6} + \frac{1}{2} \right) + \frac{5}{4} \right] - \left(2 - \frac{7}{6} \right) = \\ &= \frac{5}{4} - \left[\frac{4}{3} - \frac{9-5+3}{6} + \frac{5}{4} \right] - \left(\frac{12-7}{6} \right) = \\ &= \frac{5}{4} - \left[\frac{4}{3} - \frac{7}{6} + \frac{5}{4} \right] - \left(+\frac{5}{6} \right) = \\ &= \frac{5}{4} - \left[\frac{16-14+15}{12} \right] - \frac{5}{6} = \\ &= \frac{5}{4} - \left[+\frac{17}{12} \right] - \frac{5}{6} = \\ &= \frac{5}{4} - \frac{17}{12} - \frac{5}{6} = \\ &= \frac{15-17-5}{12} = \\ &= -\frac{12}{12} = -1 \end{aligned}$$

$$\begin{aligned}& \left[\left(\frac{2}{3} - 4 \right) \cdot \left(\frac{3}{5} - \frac{1}{2} \right) - \left(\frac{4}{3} + \frac{3}{4} \right) \cdot \left(-\frac{1}{5} \right) \cdot \left(1 + \frac{3}{5} - \frac{5}{2} \right) \right] - \left(\frac{1}{3} - \frac{1}{8} \right) : \left(-\frac{1}{2} \right) = \\& = \left[\left(\frac{2-12}{3} \right) \cdot \left(\frac{6-5}{10} \right) - \left(\frac{16+9}{12} \right) \cdot \left(-\frac{1}{5} \right) \cdot \left(\frac{10+6-25}{10} \right) \right] - \left(\frac{8-3}{24} \right) : \left(-\frac{1}{2} \right) = \\& = \left[\left(-\frac{10}{3} \right) \cdot \left(+\frac{1}{10} \right) - \left(+\frac{25}{12} \right) \cdot \left(-\frac{1}{5} \right) \cdot \left(-\frac{9}{10} \right) \right] - \left(+\frac{5}{24} \right) : \left(-\frac{2}{1} \right) = \\& = \left[-\frac{1}{3} - \left(+\frac{1}{4} \right) \cdot \left(-\frac{1}{1} \right) \cdot \left(-\frac{3}{2} \right) \right] - \left(-\frac{5}{12} \right) = \\& = \left[-\frac{1}{3} - \frac{3}{8} \right] + \frac{5}{12} = \\& = \left[\frac{-8-9}{24} \right] + \frac{5}{12} = - \\& = \frac{17}{24} + \frac{5}{12} = \\& = \frac{-17+10}{24} = \\& = -\frac{7}{24}\end{aligned}$$

$$\begin{aligned}& -\frac{19}{3} - \left[\left(1 - \frac{2}{3} \right) : \left(1 - \frac{1}{2} \right) - \frac{3}{7} + \left(-\frac{9}{7} + \frac{3}{7} \right) \cdot \left(-\frac{1}{2} \right) - \frac{1}{3} \right] - \left(-\frac{1}{6} \right) : \left(-\frac{1}{2} \right) = \\& = -\frac{19}{3} - \left[\left(\frac{3-2}{3} \right) : \left(\frac{2-1}{2} \right) - \frac{3}{7} + \left(\frac{-9+3}{7} \right) \cdot \left(-\frac{1}{2} \right) - \frac{1}{3} \right] - \left(-\frac{1}{6} \right) \cdot \left(-\frac{2}{1} \right) = \\& = -\frac{19}{3} - \left[\left(+\frac{1}{3} \right) \cdot \left(+\frac{2}{1} \right) - \frac{3}{7} + \left(-\frac{6}{7} \right) \cdot \left(-\frac{1}{2} \right) - \frac{1}{3} \right] - \left(+\frac{1}{3} \right) = \\& = -\frac{19}{3} - \left[\frac{2}{3} - \frac{3}{7} + \frac{3}{7} - \frac{1}{3} \right] - \frac{1}{3} = \\& = -\frac{19}{3} - \left[\frac{2}{3} - \frac{1}{3} \right] - \frac{1}{3} = \\& = -\frac{19}{3} - \left[+\frac{1}{3} \right] - \frac{1}{3} = \\& = -\frac{19}{3} - \frac{1}{3} - \frac{1}{3} \\& = \frac{-19-1-1}{3} = -\frac{21}{3} = -7\end{aligned}$$

$$\begin{aligned}& -1 - \left\{ -\frac{3}{4} - \left[-\left(\frac{1}{7} - \frac{1}{3} - \frac{10}{21} \right) - \left(\frac{3}{4} - \frac{1}{3} - \frac{3}{2} \right) \right] \right\} \cdot \left(1 - \frac{1}{2} \right) - \left(\frac{5}{4} - \frac{1}{2} \right) = \\& = -1 - \left\{ -\frac{3}{4} - \left[-\left(\frac{3-7-10}{21} \right) - \left(\frac{9-4-18}{12} \right) \right] \right\} \cdot \frac{1}{2} - \left(\frac{5-2}{4} \right) = \\& = -1 - \left\{ -\frac{3}{4} - \left[-\left(-\frac{14}{21} \right) - \left(-\frac{13}{12} \right) \right] \right\} \cdot \frac{1}{2} - \left(+\frac{3}{4} \right) = \\& = -1 - \left\{ -\frac{3}{4} - \left[\frac{2}{3} + \frac{13}{12} \right] \right\} \cdot \frac{1}{2} - \frac{3}{4} = \\& = -1 - \left\{ -\frac{3}{4} - \left[\frac{8+13}{12} \right] \right\} \cdot \frac{1}{2} - \frac{3}{4} = \\& = -1 - \left\{ -\frac{3}{4} - \frac{21}{12} \right\} \cdot \frac{1}{2} - \frac{3}{4} = \\& = -1 - \left\{ \frac{-9-21}{12} \right\} \cdot \frac{1}{2} - \frac{3}{4} = \\& = -1 - \left\{ -\frac{30}{12} \right\} \cdot \frac{1}{2} - \frac{3}{4} = \\& = -1 + \frac{5}{2} \cdot \frac{1}{2} - \frac{3}{4} = \\& = -1 + \frac{5}{4} - \frac{3}{4} = \\& = \frac{-4+5-3}{4} = \\& = -\frac{2}{4} = -\frac{1}{2}\end{aligned}$$

$$\begin{aligned}
 & -1 - \left\{ -\frac{3}{4} - \left[-\left(\frac{1}{7} - \frac{1}{3} - \frac{10}{21} \right) - \left(\frac{3}{4} - \frac{1}{3} - \frac{2}{3} \right) \right] \right\} \cdot \left(1 - \frac{1}{2} \right) - \left(\frac{5}{4} - \frac{1}{2} \right) = \\
 & = -1 - \left\{ -\frac{3}{4} - \left[-\left(\frac{3-7-10}{21} \right) - \left(\frac{9-4-8}{12} \right) \right] \right\} \cdot \frac{1}{2} - \left(\frac{5-2}{4} \right) = \\
 & = -1 - \left\{ -\frac{3}{4} - \left[-\left(-\frac{14}{21} \right) - \left(-\frac{3}{12} \right) \right] \right\} \cdot \frac{1}{2} - \left(+\frac{3}{4} \right) = \\
 & = -1 - \left\{ -\frac{3}{4} - \left[\frac{2}{3} + \frac{1}{4} \right] \right\} \cdot \frac{1}{2} - \frac{3}{4} = \\
 & = -1 - \left\{ -\frac{3}{4} - \left[\frac{8+3}{12} \right] \right\} \cdot \frac{1}{2} - \frac{3}{4} = \\
 & = -1 - \left\{ -\frac{3}{4} - \frac{11}{12} \right\} \cdot \frac{1}{2} - \frac{3}{4} = \\
 & = -1 - \left\{ \frac{-9-11}{12} \right\} \cdot \frac{1}{2} - \frac{3}{4} = \\
 & = -1 - \left\{ -\frac{20}{12} \right\} \cdot \frac{1}{2} - \frac{3}{4} = \\
 & = -1 + \frac{5}{3} \cdot \frac{1}{2} - \frac{3}{4} = \\
 & = -1 + \frac{5}{6} - \frac{3}{4} = \\
 & = \frac{-12+5-9}{12} = -\frac{11}{12}
 \end{aligned}$$

$$\begin{aligned}& \frac{7}{20} - \left\{ -\frac{7}{5} - \left[-\left(\frac{1}{2} + \frac{1}{2}\right) - \left(-\frac{3}{2} - \frac{1}{8}\right) + \left(-\frac{8}{5} + \frac{2}{3}\right) \right] - \frac{5}{24} \right\} - \frac{3}{5} = \\&= \frac{7}{20} - \left\{ -\frac{7}{5} - \left[-(+1) - \left(\frac{-12-1}{8}\right) + \left(\frac{-24+10}{15}\right) \right] - \frac{5}{24} \right\} - \frac{3}{5} = \\&= \frac{7}{20} - \left\{ -\frac{7}{5} - \left[-1 + \frac{13}{8} - \frac{14}{15} \right] - \frac{5}{24} \right\} - \frac{3}{5} = \\&= \frac{7}{20} - \left\{ -\frac{7}{5} - \left[\frac{-120+195-112}{120} \right] - \frac{5}{24} \right\} - \frac{3}{5} = \\&= \frac{7}{20} - \left\{ -\frac{7}{5} + \frac{37}{120} - \frac{5}{24} \right\} - \frac{3}{5} = \\&= \frac{7}{20} - \left\{ \frac{-168+37-25}{120} \right\} - \frac{3}{5} = \\&= \frac{7}{20} + \frac{156}{120} - \frac{3}{5} = \\&= \frac{7}{20} + \frac{39}{30} - \frac{3}{5} = \\&= \frac{7}{20} + \frac{13}{10} - \frac{3}{5} = \\&= \frac{7+26-12}{20} = \frac{21}{20}\end{aligned}$$

$$\begin{aligned}
 & \left[\left(\frac{3}{4} - \frac{1}{20} - \frac{7}{5} \right) - \left(3 - \frac{5}{2} - \frac{8}{5} \right) \right] + \left(-\frac{1}{10} \right) - \frac{1}{10} \cdot \left(-\frac{5}{2} \right) = \\
 & = \left[\left(\frac{15-1-28}{20} \right) - \left(\frac{30-25-16}{10} \right) \right] - \frac{1}{10} - \frac{1}{2} \cdot \left(-\frac{1}{2} \right) = \\
 & = \left[-\frac{14}{20} - \left(-\frac{11}{10} \right) \right] - \frac{1}{10} + \frac{1}{4} = \\
 & = \left[-\frac{7}{10} + \frac{11}{10} \right] - \frac{1}{10} + \frac{1}{4} = \\
 & = \frac{3}{10} - \frac{1}{10} + \frac{1}{4} = \frac{2}{10} + \frac{1}{4} = \frac{4+5}{20} = \frac{9}{20}
 \end{aligned}$$

$$\begin{aligned}
 & \frac{1}{2} - \left(-\frac{1}{3} \right) + \left\{ \left[\left(-\frac{4}{3} - 4 \right) + \left(+\frac{16}{3} \right) + \frac{1}{5} \right] - \left(-\frac{1}{3} - 1 \right) \right\} + \left(\frac{1}{9} - \frac{7}{15} + \frac{1}{45} \right) - \frac{1}{2} = \\
 & = \frac{1}{3} + \left\{ \left[\left(\frac{-4-12}{3} \right) + \frac{16}{3} + \frac{1}{5} \right] - \left(\frac{-1-3}{3} \right) \right\} + \left(\frac{5-21+1}{45} \right) = \quad \text{perchè } +\frac{1}{2} - \frac{1}{2} = 0 \\
 & = \frac{1}{3} + \left\{ \left[-\frac{16}{3} + \frac{16}{3} + \frac{1}{5} \right] - \left(-\frac{4}{3} \right) \right\} + \left(-\frac{15}{45} \right) = \\
 & = \frac{1}{3} + \left\{ \frac{1}{5} + \frac{4}{3} \right\} - \frac{1}{3} = \\
 & = \frac{1}{3} + \frac{1}{5} + \frac{4}{3} - \frac{1}{3} = \quad \text{perchè } +\frac{1}{3} - \frac{1}{3} = 0 \\
 & = \frac{1}{5} + \frac{4}{3} = \frac{3+20}{15} = \frac{23}{15}
 \end{aligned}$$

$$\begin{aligned}& -\frac{5}{4} - \left[-\frac{4}{3} - \left(\frac{3}{2} - \frac{5}{6} + \frac{1}{2} \right) + \frac{5}{4} \right] - \left(2 - \frac{7}{6} \right) \cdot \left(-\frac{6}{5} \right) = \\& = -\frac{5}{4} - \left[-\frac{4}{3} - \left(\frac{9-5+3}{6} \right) + \frac{5}{4} \right] - \left(\frac{12-7}{6} \right) \cdot \left(-\frac{6}{5} \right) = \\& = -\frac{5}{4} - \left[-\frac{4}{3} - \left(+\frac{7}{6} \right) + \frac{5}{4} \right] - \left(+\frac{5}{6} \right) \cdot \left(-\frac{6}{5} \right) = \\& = -\frac{5}{4} - \left[-\frac{4}{3} - \frac{7}{6} + \frac{5}{4} \right] - (-1) = \\& = -\frac{5}{4} - \left[\frac{-16-14+15}{12} \right] + 1 = \\& = -\frac{5}{4} - \left[-\frac{15}{12} \right] + 1 = \\& = -\frac{5}{4} - \left[-\frac{5}{4} \right] + 1 = \\& = -\frac{5}{4} + \frac{5}{4} + 1 = 1\end{aligned}$$

$$\begin{aligned}& -\left(-\frac{7}{6}-\frac{3}{2}+\frac{5}{4}\right) \cdot\left(\frac{1}{17}-1\right)-\left(\frac{1}{3}-1\right)+\left(\frac{1}{2}-1\right)= \\& =-\left(\frac{-14-18+15}{12}\right) \cdot\left(\frac{1-17}{17}\right)-\left(\frac{1-3}{3}\right)+\left(\frac{1-2}{2}\right)= \\& =-\left(-\frac{17}{12}\right) \cdot\left(-\frac{16}{17}\right)-\left(-\frac{2}{3}\right)+\left(-\frac{1}{2}\right)= \\& =-\frac{4}{3}+\frac{2}{3}-\frac{1}{2}= \\& =\frac{-8+4-3}{6}=-\frac{7}{6}\end{aligned}$$

$$\begin{aligned}& \frac{2 \cdot(9-5)}{3}-\frac{2 \cdot 9+3}{5}-3-\frac{2 \cdot(-9-25)}{15}= \\& =\frac{2 \cdot 4}{3}-\frac{18+3}{5}-3-\frac{2 \cdot(-34)}{15}= \\& =\frac{8}{3}-\frac{21}{5}-3+\frac{68}{15}= \\& =\frac{40-63-45+68}{15}=0\end{aligned}$$

$$\begin{aligned}& \left\{\left[-5+\frac{3}{8}-\frac{1}{8}+\frac{9}{2}\right]:\left[-\frac{4}{25}+\frac{3}{20}-\frac{1}{25}\right]\right\}-\frac{11}{2}= \\& =\left\{\left[\frac{-40+3-1+36}{8}\right]:\left[\frac{-16+15-4}{100}\right]\right\}-\frac{11}{2}= \\& =\left\{-\frac{2}{8}:\left(-\frac{5}{100_{20}}\right)\right\}-\frac{11}{2}= \\& =\left\{-\frac{1}{4} \cdot\left(-\frac{20}{1}\right)\right\}-\frac{11}{2}= \\& =+5-\frac{11}{2}= \\& =\frac{10-11}{2}=-\frac{1}{2}\end{aligned}$$

$$\begin{aligned} & 1 + \left(-\frac{2}{3} - 1\right) - \left(1 - \frac{1}{2}\right) + \left(1 - \frac{1}{4}\right) = \\ & = 1 + \left(\frac{-2-3}{3}\right) - \left(\frac{2-1}{2}\right) + \left(\frac{4-1}{4}\right) = \\ & = 1 + \left(-\frac{5}{3}\right) - \left(+\frac{1}{2}\right) + \left(+\frac{3}{4}\right) = \\ & = 1 - \frac{5}{3} - \frac{1}{2} + \frac{3}{4} = \\ & = \frac{12-20-6+9}{12} = \\ & = \frac{21-26}{12} = -\frac{5}{12} \end{aligned}$$

$$\begin{aligned} & \frac{2}{5} : \left(-\frac{1}{2}\right) - \left[-\frac{33}{12} : \left(\frac{1}{2} - \frac{7}{3}\right) - 2\right] - \frac{2}{5} = \\ & = \frac{2}{5} \cdot \left(-\frac{2}{1}\right) - \left[-\frac{33}{12} : \left(\frac{3-14}{6}\right) - 2\right] - \frac{2}{5} = \\ & = -\frac{4}{5} - \left[-\frac{33}{12} : \left(-\frac{11}{6}\right) - 2\right] - \frac{2}{5} = \\ & = -\frac{4}{5} - \left[+\frac{3}{2} - 2\right] - \frac{2}{5} = \\ & = -\frac{4}{5} - \left[\frac{3-4}{2}\right] - \frac{2}{5} = \\ & = -\frac{4}{5} - \left[-\frac{1}{2}\right] - \frac{2}{5} = \\ & = -\frac{4}{5} + \frac{1}{2} - \frac{2}{5} = \\ & = \frac{-8+5-4}{10} = -\frac{7}{10} \end{aligned}$$

$$\begin{aligned}& \frac{1}{36} - \left\{ \frac{1}{9} + \left[-\frac{2}{3} \cdot \left(\frac{1}{2} - 1 \right) - \frac{1}{2} \right] + \frac{1}{3} \cdot \left(1 - \frac{5}{3} \right) \right\} \cdot \left(-1 - \frac{3}{2} \right) = \\&= \frac{1}{36} - \left\{ \frac{1}{9} + \left[-\frac{2}{3} \cdot \left(-\frac{1}{2} \right) - \frac{1}{2} \right] + \frac{1}{3} \cdot \left(-\frac{2}{3} \right) \right\} \cdot \left(-\frac{5}{2} \right) = \\&= \frac{1}{36} - \left\{ \frac{1}{9} + \left[\frac{1}{3} - \frac{1}{2} \right] - \frac{2}{9} \right\} \cdot \left(-\frac{5}{2} \right) = \\&= \frac{1}{36} - \left\{ \frac{1}{9} + \left(-\frac{1}{6} \right) - \frac{2}{9} \right\} \cdot \left(-\frac{5}{2} \right) = \\&= \frac{1}{36} - \left\{ \frac{1}{9} - \frac{1}{6} - \frac{2}{9} \right\} \cdot \left(-\frac{5}{2} \right) = \\&= \frac{1}{36} - \left\{ \frac{2 - 3 - 4}{18} \right\} \cdot \left(-\frac{5}{2} \right) = \\&= \frac{1}{36} - \left\{ -\frac{5}{18} \right\} \cdot \left(-\frac{5}{2} \right) = \\&= \frac{1}{36} - \frac{25}{36} = \\&= \frac{1 - 25}{36} = \\&= -\frac{24}{36} = -\frac{2}{3}\end{aligned}$$

$$\begin{aligned}& \left(\frac{4}{7} + \frac{1}{2} - \frac{3}{4}\right)\left(-\frac{4}{3}\right) - \left(\frac{5}{4} + \frac{3}{2}\right)\left(-\frac{1}{2} - \frac{3}{2}\right)\left(\frac{9}{11} - 1\right) = \\& = \left(\frac{16 + 14 - 21}{28}\right)\left(-\frac{4}{3}\right) - \left(\frac{5 + 6}{4}\right)\left(-\frac{4}{2}\right)\left(\frac{9 - 11}{11}\right) = \\& = \left(\frac{9}{28}\right)\left(-\frac{4}{3}\right) - \left(\frac{11}{4}\right)(-2)\left(-\frac{2}{11}\right) = \\& = -\frac{3}{7} - 1 = \\& = \frac{-3 - 7}{7} = -\frac{10}{7}\end{aligned}$$

Keywords

 *Algebra, numeri relativi, relativi, numeri positivi, numeri negativi, valore assoluto, numeri reali, segno, $\mathbb{Z}$, espressioni algebriche, esercizi con soluzioni, matematica*

  *Algebra, $\mathbb{Z}$, signed numbers, integers, negative e non-negative numbers, real numbers, sign, exercises with solution, Algebraic Expressions solved, math*

 *Algebra, $\mathbb{Z}$, nombre negativo, nombre positivo, signo, matemática*

 *Algèbre, $\mathbb{Z}$, nombres relatifs, nombre négatifs, nombre positifs, nombres réels, mathématique*

 *Algebra, $\mathbb{Z}$, Positive und Negative Zahlen, reellen Zahlen, Signum, Mathematik*