

Numeri relativi. Espressioni con i numeri decimali. Completi di soluzione guidata.

Signed Numbers

- | | | |
|-----|---|--|
| 1. | $-(0,5 - 0,\bar{3}) - 1$ | $\left[-\frac{7}{6}\right]$
soluzione |
| 2. | $-0,75 + 0,5 \cdot (-0,\bar{3} + 0,5) - (1 - 0,75)$ | $\left[-\frac{11}{12}\right]$
soluzione |
| 3. | $(0,6 - 0,\bar{3}) : (-1,\bar{3}) - (0,\bar{6} - 0,\bar{3})$ | $\left[-\frac{7}{12}\right]$
soluzione |
| 4. | $[3,\bar{6} : 1,\overline{06} \cdot 3,\overline{18} + (-0,6 - 0,\bar{6})] : (-73) - 0,2$ | $\left[-\frac{1}{3}\right]$
soluzione |
| 5. | $-1 - 0,5 \cdot (-1 - 0,5 + 0,\bar{3})$ | $\left[-\frac{5}{12}\right]$
soluzione |
| 6. | $0,5 - [1,\bar{3} - (0,2 - 0,1\bar{3}) + 0,\bar{3}] - 0,5 \cdot (1 - 0,25)$ | $\left[-\frac{25}{24}\right]$
soluzione |
| 7. | $-0,\bar{6} + 0,1\bar{6} - (-0,25 + 0,5) \cdot 1,\bar{3}$ | $\left[-\frac{2}{3}\right]$
soluzione |
| 8. | $0,8\bar{3} - (0,4 + 0,\bar{7} - 0,15) \cdot 1,2$ | $\left[-\frac{2}{5}\right]$
soluzione |
| 9. | $0,1\bar{2} - [-2,5 + 0,2 - (-0,\bar{3} + 0,\bar{2})] + \{-[0,3 - 0,\bar{8} - (-1 + 0,1)] - 2\}$ | [0]
soluzione |
| 10. | $-1 + [(0,08\bar{3} - 0,25) - (-0,75 + 0,5) - (0,1\bar{6} - 0,8\bar{3} - 0,\bar{6})] + 1 - (3,8 - 1,8)$ | $\left[-\frac{7}{12}\right]$
soluzione |
| 11. | $1,25 : \{0,6 : [-(0,3 + 0,5) + 0,5] + 1,\bar{6}\} - 0,5 + 0,25$ | [-4]
soluzione |
| 12. | $0,5 - 8,\bar{3} \cdot (0,4 - 1)^2 + (1,5)^3 : (1,5)^2 + (0,5 - 1)^2$ | $\left[-\frac{3}{4}\right]$
soluzione |
| 13. | $-[(0,\bar{3} - 2) \cdot (2,5 - 1,1\bar{6}) - (1 - 1,\bar{3}) \cdot (-1 - 0,\bar{3})] : (-5,\bar{3})$ | $\left[-\frac{1}{2}\right]$ |

Esercizi e soluzioni

$$\begin{aligned}
& -(0,5 - 0,\bar{3}) - 1 = \\
& = -\left(\frac{5}{10} - \frac{3}{9}\right) - 1 = \\
& = -\left(\frac{1}{2} - \frac{1}{3}\right) - 1 = \\
& = -\frac{3-2}{6} - 1 = \\
& = -\frac{1}{6} - 1 = \\
& = \frac{-1-6}{6} = -\frac{7}{6}
\end{aligned}$$

$$\begin{aligned}
& -0,75 + 0,5 \cdot (-0,(\bar{3}) + 0,5) - (1 - 0,75) = \\
& = -\frac{75}{100} + \frac{5}{10} \cdot \left(-\frac{3}{9} + \frac{5}{10}\right) - \left(1 - \frac{75}{100}\right) = \\
& = -\frac{3}{4} + \frac{1}{2} \cdot \left(-\frac{1}{3} + \frac{1}{2}\right) - \left(1 - \frac{3}{4}\right) = \\
& = -\frac{3}{4} + \frac{1}{2} \cdot \left(\frac{-2+3}{6}\right) - \left(\frac{4-3}{4}\right) = \\
& = -\frac{3}{4} + \frac{1}{2} \cdot \left(\frac{1}{6}\right) - \left(+\frac{1}{4}\right) = \\
& = -\frac{3}{4} + \frac{1}{12} - \frac{1}{4} = \\
& = \frac{-9+1-3}{12} = \\
& = -\frac{11}{12}
\end{aligned}$$

$$\begin{aligned}
(0,6 - 0,\bar{3}) : (-1,\bar{3}) - (0,\bar{6} - 0,\bar{3}) &= \\
= \left(\frac{6}{9} - \frac{3}{9}\right) : \left(-\frac{12}{9}\right) - \left(\frac{6}{9} - \frac{3}{9}\right) &= \\
= \left(+\frac{3}{9}\right) \cdot \left(-\frac{9}{12}\right) - \left(+\frac{3}{9}\right) &= \\
= -\frac{1}{4} - \frac{1}{3} &= \\
= \frac{-3 - 4}{9} = -\frac{7}{9} &=
\end{aligned}$$

$$\begin{aligned}
[3,\bar{6} : 1,\overline{06} \cdot 3,\overline{18} + (-0,6 - 0,\bar{6})] : (-73) - 0,2 &= \\
[3,(6) : 1,(06) \cdot 3,(18) + (-0,6 - 0,(6))] : (-73) - 0,2 &= \\
= \left[\frac{33}{9} : \frac{105}{99} \cdot \frac{315}{99} + \left(-\frac{6}{10} - \frac{6}{9}\right)\right] \cdot \left(-\frac{1}{73}\right) - \frac{2}{10} &= \\
= \left[\frac{33}{9} \cdot \frac{99}{105} \cdot \frac{315}{99} + \left(-\frac{3}{5} - \frac{2}{3}\right)\right] \cdot \left(-\frac{1}{73}\right) - \frac{1}{5} &= \\
= \left[\frac{11}{1} \cdot \frac{11}{35} \cdot \frac{315}{99} + \left(-\frac{9 - 10}{15}\right)\right] \cdot \left(-\frac{1}{73}\right) - \frac{1}{5} &= \\
= \left[\frac{11}{1} \cdot \frac{1}{7} \cdot \frac{63}{9} + \left(-\frac{19}{15}\right)\right] \cdot \left(-\frac{1}{73}\right) - \frac{1}{5} &= \\
= \left[\frac{11}{1} - \frac{19}{15}\right] \cdot \left(-\frac{1}{73}\right) - \frac{1}{5} &= \\
= \left[\frac{165 - 19}{15}\right] \cdot \left(-\frac{1}{73}\right) - \frac{1}{5} &= \\
= \left[\frac{146}{15}\right] \cdot \left(-\frac{1}{73}\right) - \frac{1}{5} &= \\
= -\frac{2}{15} - \frac{1}{5} &= \\
= \frac{-2 - 3}{15} &= \\
= -\frac{5}{15} = -\frac{1}{3} &=
\end{aligned}$$

$$\begin{aligned} & -1 - 0,5 \cdot (-1 - 0,5 + 0, \bar{3}) = \\ & = -1 - \frac{5}{10} \cdot \left(-1 - \frac{5}{10} + \frac{3}{9}\right) = \\ & = -1 - \frac{1}{2} \cdot \left(-1 - \frac{1}{2} + \frac{1}{3}\right) = \\ & = -1 - \frac{1}{2} \cdot \left(\frac{-6 - 3 + 2}{6}\right) = \\ & = -1 - \frac{1}{2} \cdot \left(-\frac{7}{6}\right) = \\ & = -1 + \frac{7}{12} = \\ & = \frac{-12 + 7}{12} = -\frac{5}{12} \end{aligned}$$

$$\begin{aligned}
& 0,5 - [1, \bar{3} - (0,2 - 0,1\bar{3}) + 0, \bar{3}] - 0,5 \cdot (1 - 0,25) \\
& 0,5 - [1, (3) - (0,2 - 0,1(3)) + 0, (3)] - 0,5 \cdot (1 - 0,25) = \\
& = \frac{1}{2} - \left[\frac{13-1}{9} - \left(\frac{2}{10} - \frac{13-1}{90} \right) + \frac{3}{9} \right] - \frac{5}{10} \cdot \left(1 - \frac{25}{100} \right) = \\
& = \frac{1}{2} - \left[\frac{12}{9} - \left(\frac{1}{5} - \frac{12}{90} \right) + \frac{1}{3} \right] - \frac{1}{2} \cdot \left(1 - \frac{1}{4} \right) = \\
& = \frac{1}{2} - \left[\frac{4}{3} - \left(\frac{1}{5} - \frac{2}{15} \right) + \frac{1}{3} \right] - \frac{1}{2} \cdot \left(+\frac{3}{4} \right) = \\
& = \frac{1}{2} - \left[\frac{4}{3} - \left(\frac{3-2}{15} \right) + \frac{1}{3} \right] - \frac{1}{2} \cdot \left(+\frac{3}{4} \right) = \\
& = \frac{1}{2} - \left[\frac{4}{3} - \frac{1}{15} + \frac{1}{3} \right] - \frac{3}{8} = \\
& = \frac{1}{2} - \left[\frac{20-1+5}{15} \right] - \frac{3}{8} = \\
& = \frac{1}{2} - \left[+\frac{25}{15} \right] - \frac{3}{8} = \\
& = \frac{1}{2} - \left[+\frac{5}{3} \right] - \frac{3}{8} = \\
& = \frac{1}{2} - \frac{5}{3} - \frac{3}{8} = \\
& = \frac{24-40-9}{24} = \\
& = -\frac{25}{24}
\end{aligned}$$

$$\begin{aligned} & -0,\bar{6} + 0,1\bar{6} - (-0,25 + 0,5) \cdot 1, \bar{3} \\ & -0,(6) + 0,1(6) - (-0,25 + 0,5) \cdot 1,(3) = \\ & = -\frac{6}{9} + \frac{16-1}{90} - \left(-\frac{25}{100} + \frac{5}{10}\right) \cdot \frac{13-1}{9} = \\ & = -\frac{2}{3} + \frac{15}{90} - \left(-\frac{1}{4} + \frac{1}{2}\right) \cdot \frac{12}{9} = \\ & = -\frac{2}{3} + \frac{1}{6} - \left(\frac{-1+2}{4}\right) \cdot \frac{4}{3} = \\ & = -\frac{2}{3} + \frac{1}{6} - \left(+\frac{1}{4}\right) \cdot \frac{4}{3} = \\ & = -\frac{2}{3} + \frac{1}{6} - \frac{1}{3} = \\ & = \frac{-4+1-2}{6} = \\ & = -\frac{4}{6} = -\frac{2}{3} \end{aligned}$$

$$\begin{aligned}
 & 0,8\bar{3} - (0,4 + 0,\bar{7} - 0,15) \cdot 1,2 \\
 &= \frac{83}{90} - \left(\frac{4}{10} + \frac{7}{9} - \frac{15}{100} \right) \cdot \frac{12}{100} = \\
 &= \frac{75}{90} - \left(\frac{4}{10} + \frac{7}{9} - \frac{3}{20} \right) \cdot \frac{12}{100} = \\
 &= \frac{5}{6} - \frac{72 + 140 - 27}{180} \cdot \frac{6}{5} = \\
 &= \frac{5}{6} - \frac{185}{180} \cdot \frac{6}{5} = \\
 &= \frac{5}{6} - \frac{37}{30} \cdot \frac{1}{1} = \\
 &= \frac{5}{6} - \frac{37}{30} = \\
 &= \frac{25 - 37}{30} = \\
 &= -\frac{12}{30} = -\frac{2}{5}
 \end{aligned}$$

$$\begin{aligned}
& 0,1\bar{2} - [-2,5 + 0,2 - (-0,\bar{3} + 0,\bar{2})] + \{-[0,3 - 0,\bar{8} - (-1 + 0,1)] - 2\} \\
&= \frac{12-1}{90} - \left[-\frac{25}{10} + \frac{1}{5} - \left(-\frac{3}{9} - \frac{2}{9} \right) \right] + \left\{ - \left[\frac{3}{10} - \frac{8}{9} - \left(-1 + \frac{1}{10} \right) \right] - 2 \right\} = \\
&= \frac{11}{90} - \left[-\frac{5}{2} + \frac{1}{5} - \left(\frac{-3+2}{9} \right) \right] + \left\{ - \left[\frac{3}{10} - \frac{8}{9} - \left(\frac{-10+1}{10} \right) \right] - 2 \right\} = \\
&= \frac{11}{90} - \left[-\frac{5}{2} + \frac{1}{5} + \frac{1}{9} \right] + \left\{ - \left[\frac{3}{10} - \frac{8}{9} + \frac{9}{10} \right] - 2 \right\} = \\
&= \frac{11}{90} - \left[\frac{-225+18+10}{90} \right] + \left\{ - \left[\frac{27-80+81}{90} \right] - 2 \right\} = \\
&= \frac{11}{90} + \frac{197}{90} + \left\{ -\frac{28}{90} - 2 \right\} = \\
&= \frac{11}{90} + \frac{197}{90} + \left\{ \frac{-28-180}{90} \right\} = \\
&= \frac{11+197-208}{90} = \frac{0}{90} = 0
\end{aligned}$$

$$\begin{aligned}
 & -1 + [(0,08\bar{3} - 0,25) - (-0,75 + 0,5) - (0,1\bar{6} - 0,8\bar{3} - 0,\bar{6})] + 1 - (3,8 - 1,8) \\
 & = -1 + \left[\left(\frac{83 - 8}{900} - \frac{25}{100} \right) - \left(-\frac{75}{100} + \frac{5}{10} \right) - \left(\frac{16 - 1}{90} - \frac{83 - 8}{90} - \frac{6}{9} \right) \right] + 1 - \left(\frac{38}{10} - \frac{18}{10} \right) =
 \end{aligned}$$

Elimino i due opposti


$$\begin{aligned}
 & = \left[\left(\frac{75}{900} - \frac{1}{4} \right) - \left(-\frac{3}{4} + \frac{1}{2} \right) - \left(\frac{15}{90} - \frac{75}{90} - \frac{6}{9} \right) \right] - \left(\frac{38 - 18}{10} \right) = \\
 & = \left[\left(\frac{75 - 225}{900} \right) - \left(\frac{-3 + 2}{4} \right) - \left(\frac{15 - 75 - 60}{90} \right) \right] - \frac{20}{10} = \\
 & = \left[-\frac{150}{900} - \left(-\frac{1}{4} \right) - \left(-\frac{120}{90} \right) \right] - 2 = \\
 & = \left[-\frac{1}{6} + \frac{1}{4} + \frac{4}{3} \right] - 2 = \\
 & = \frac{-2 + 3 + 16}{12} - 2 = \\
 & = \frac{17}{12} - 2 = \\
 & = \frac{17 - 24}{12} = -\frac{7}{12}
 \end{aligned}$$



$$\begin{aligned}
 & \left\{ -1 + \left[\left(+\frac{1}{12} - 0,\bar{3} - 0,25 \right) - \left(-0,75 + \frac{1}{2} \right) - \left(0,1\bar{6} - \frac{5}{6} - \frac{2}{3} \right) \right] + (+1) \right\} + \left(-1 + \frac{1}{2} - \frac{3}{2} \right) = \\
 & \left\{ -1 + \left[\left(+\frac{1}{12} - 0,\bar{3} - 0,25 \right) - \left(-0,75 + \frac{1}{2} \right) - \left(0,1\bar{6} - \frac{5}{6} - \frac{2}{3} \right) \right] + (+1) \right\} + \left(-1 + \frac{1}{2} - \frac{3}{2} \right) = \\
 & = \left\{ -1 + \left[\left(+\frac{1}{12} - \frac{1}{3} - \frac{1}{4} \right) - \left(-\frac{3}{4} + \frac{1}{2} \right) - \left(\frac{1}{6} - \frac{5}{6} - \frac{2}{3} \right) \right] + 1 \right\} + \left(\frac{-2+1-3}{2} \right) = \\
 & = \left\{ -1 + \left[\left(\frac{+1-4-3}{12} \right) - \left(\frac{-3+2}{4} \right) - \left(\frac{+1-5-4}{6} \right) \right] + 1 \right\} + \left(-\frac{4}{2} \right) = \\
 & = \left\{ -1 + \left[-\frac{6}{12} - \left(-\frac{1}{4} \right) - \left(-\frac{8}{6} \right) \right] + 1 \right\} - \frac{4}{2} = \\
 & = \left\{ -1 + \left[-\frac{1}{2} + \frac{1}{4} + \frac{8}{6} \right] + 1 \right\} - 2 = \\
 & = \left\{ -1 + \left[-\frac{1}{2} + \frac{1}{4} + \frac{8}{6} \right] + 1 \right\} - 2 = \\
 & = \left\{ -1 + \left[\frac{-6+3+16}{12} \right] + 1 \right\} - 2 = \\
 & = \left\{ -1 + \left[+\frac{13}{12} \right] + 1 \right\} - 2 = \\
 & = \left\{ -1 + \frac{13}{12} + 1 \right\} - 2 = \\
 & = \frac{13}{12} - 2 = \\
 & = \frac{13-24}{12} = -\frac{11}{12}
 \end{aligned}$$


$$\begin{aligned}
 & 1,25 : \{0,6 : [-(0,3 + 0,5) + 0,5] + 1, \bar{6}\} - 0,5 + 0,25 \\
 &= \frac{125}{100} : \left\{ \frac{6}{10} : \left[-\left(\frac{3}{10} + \frac{5}{10} \right) + \frac{5}{10} \right] + \frac{16-1}{9} \right\} - \frac{5}{10} + \frac{25}{100} = \\
 &= \frac{5}{4} : \left\{ \frac{3}{5} : \left[-\frac{8}{10} + \frac{5}{10} \right] + \frac{15}{9} \right\} - \frac{1}{2} + \frac{1}{4} = \\
 &= \frac{5}{4} : \left\{ \frac{3}{5} : \left[\frac{-8+5}{10} \right] + \frac{5}{3} \right\} - \frac{1}{2} + \frac{1}{4} = \\
 &= \frac{5}{4} : \left\{ \frac{3}{5} \cdot \left(-\frac{10}{3} \right) + \frac{5}{3} \right\} - \frac{1}{2} + \frac{1}{4} = \\
 &= \frac{5}{4} : \left\{ -2 + \frac{5}{3} \right\} - \frac{1}{2} + \frac{1}{4} = \\
 &= \frac{5}{4} : \left\{ \frac{-6+5}{3} \right\} - \frac{1}{2} + \frac{1}{4} = \\
 &= \frac{5}{4} : \left\{ -\frac{1}{3} \right\} - \frac{1}{2} + \frac{1}{4} = \\
 &= \frac{5}{4} \cdot \{-3\} - \frac{1}{2} + \frac{1}{4} = \\
 &= -\frac{15}{4} - \frac{1}{2} + \frac{1}{4} = \\
 &= \frac{-15 - 2 + 1}{4} = \\
 &= -\frac{16}{4} = -4
 \end{aligned}$$

$$\begin{aligned}
 & 0,5 - 8\bar{3} \cdot (0,4 - 1)^2 + (1,5)^3 : (1,5)^2 + (0,5 - 1)^2 = \\
 & = \frac{5}{10} - \frac{83 - 8}{9} \cdot \left(\frac{4}{10} - 1\right)^2 + \left(\frac{15}{10}\right)^{3-2} + \left(\frac{5}{10} - 1\right)^2 = \\
 & = \frac{1}{2} - \frac{75}{9} \cdot \left(\frac{2}{5} - 1\right)^2 + \left(\frac{3}{2}\right)^1 + \left(\frac{1}{2} - 1\right)^2 = \\
 & = \frac{1}{2} - \frac{25}{3} \cdot \left(\frac{2}{5} - 1\right)^2 + \left(\frac{3}{2}\right)^1 + \left(\frac{1}{2} - 1\right)^2 = \\
 & = \frac{1}{2} - \frac{25}{3} \cdot \left(\frac{2-5}{5}\right)^2 + \frac{3}{2} + \left(-\frac{1}{2}\right)^2 = \\
 & = \frac{1}{2} - \frac{25}{3} \cdot \frac{9}{25} + \frac{3}{2} + \frac{1}{4} = \\
 & = \frac{1}{2} - 3 + \frac{3}{2} + \frac{1}{4} = \\
 & = \frac{2 - 12 + 6 + 1}{4} = -\frac{3}{4}
 \end{aligned}$$

Keywords

 *Algebra, numeri relativi, relativi, numeri positivi, numeri negativi, valore assoluto, numeri reali, segno, Z, espressioni algebriche, esercizi con soluzioni, matematica*

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

 *Algebra, Z, nombre negativo, nombre positivo, signo, matemática*

 *Algèbre, Z, nombres relatifs, nombre négatifs, nombre positifs, nombres réels, mathématique*

 *Algebra, Z, Positive und Negative Zahlen, reellen Zahlen, Signum, Mathematik*