

Numeri relativi – Espressioni con le potenze di frazioni Signed Numbers

1.
$$-\frac{25}{3} \cdot \left(\frac{2}{5} - 1\right)^2 \cdot \left(\frac{5}{3} - 2\right)^2 + \left(\frac{1}{2} - 1\right)^2 = -\frac{1}{12}$$

$$2. \left[\left(-2 + \frac{8}{9} \right) \div \left(-\frac{5}{3} \right)^2 - \frac{1}{3} + \left(-\frac{2}{3} \right)^3 \cdot \left(-\frac{9}{2} \right) \right] \div \left[-\frac{1}{25} + \frac{3}{5} + \left(2 - \frac{6}{5} \right)^2 \right] = \frac{1}{2}$$

3.
$$\frac{1}{2} - \left(-\frac{1}{3}\right)^3 + \left\{ \left[\left(-4 - \frac{4}{3}\right) \div \left(+\frac{16}{3}\right) + \frac{1}{5} \right]^2 - \left(-\frac{1}{9} - 1\right) \right\}^0 \cdot \left(\frac{1}{9} - \frac{7}{15} + \frac{1}{45}\right)^3 - \frac{2}{3} = -\frac{1}{6}$$

$$-\frac{16}{9} - \left\{ \left[\left(-\frac{8}{21} - 1 + \frac{5}{7} \right)^2 + \left(\frac{19}{10} - \frac{7}{5} \right)^3 - \frac{29}{72} \right] \div \frac{12}{3} \right\} \div \left(-\frac{3}{2} \right) = -\frac{7}{4}$$

6.
$$\left\{ \left[\left(-\frac{1}{2} \right)^2 \right]^2 - \left[\frac{1}{2} \cdot \left(-\frac{1}{2} \right)^3 \div \left(\frac{1}{2} \right)^2 \right]^2 \right\} \cdot \left[-3^2 \cdot \left(-\frac{4}{3} \right)^2 \cdot \left(\frac{3}{4} \right)^3 \right] = \frac{1}{24}$$

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

8.
$$\left[\left(\frac{1}{2} - \frac{1}{5} \right)^3 + \left(1 + \frac{3}{4} - \frac{9}{10} - \frac{3}{20} \right)^3 - \left(-\frac{13}{100} \right) \right]^3 - \frac{1}{23} \cdot \left(3 + \frac{2}{3} - \frac{7}{4} \right) = \frac{1}{24}$$

$$9. \quad \left[\left(-\frac{3}{4} \right)^3 \right]^5 \div \left[\left(-\frac{3}{4} \right)^3 \right]^4 \cdot \left\{ \left[\left(-\frac{3}{4} \right)^2 \right]^3 \right\}^0 = \frac{27}{64}$$

10.
$$0.5 - 8.(3) \cdot (0.4 - 1)^2 + (1.5)^3 \cdot (1.5)^2 - (0.5 - 1)^2 = -\frac{3}{4}$$

11.
$$\left[\left(-\frac{1}{3} \right)^2 \div \left(-\frac{1}{6} \right)^2 \right] \cdot \left[\left(-\frac{1}{2} \right)^4 \div \left(-\frac{1}{15} \div \frac{4}{15} \right) \right] : \left[\left(-\frac{3}{2} \right)^2 + \left(-1 - \frac{1}{2} \right) \right] = -\frac{4}{3}$$

12.
$$\left\{ \left[-\frac{15}{3} + \frac{3}{8} + \left(-\frac{1}{2} \right)^3 + \frac{9}{2} \right] \div \left[-\left(-\frac{2}{5} \right)^2 + \frac{3}{20} - \left(-\frac{1}{5} \right)^2 \right] \right\} - \frac{11}{2} = -\frac{1}{2}$$