Espressioni con le frazioni

Calcola il valore delle seguenti espressioni.

1. $\frac{8}{4} \cdot \frac{\frac{6}{12}+\frac{1}{3}}{\frac{9}{7}\cdot\frac{49}{81}} + \frac{\frac{6}{3}}{\frac{14}{4}:\frac{8}{6}}$ $\left[\frac{61}{21}\right]$

2. $\left[\frac{\frac{12}{4}\cdot\frac{4}{6}-\left(\frac{1}{5}:\frac{1}{10}\right)}{\frac{3}{4}-\frac{2}{3}}\right] + \frac{3}{4}\cdot\left(\frac{2}{16}+\frac{5}{6}\right)$ $\left[\frac{9}{16}\right]$

3. $\frac{2}{4} + \left[\frac{\left(\frac{3}{8}-\frac{1}{4}\right)\cdot\frac{42}{7}}{\frac{4}{9}:\frac{16}{27}+\frac{1}{2}}\right] - \frac{50}{60}$ $\left[\frac{4}{15}\right]$

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

5. $\left(\frac{2}{7}+\frac{4}{6}\right)\cdot\frac{63}{60} - \left[\frac{\left(\frac{4}{6}:\frac{2}{7}\right)-\left(\frac{5}{4}+\frac{6}{4}\cdot\frac{2}{9}\right)}{\frac{2}{4}+\frac{3}{8}}\right]$ $\left[\frac{1}{7}\right]$

6. $\frac{2}{3}+\frac{1}{3}+4-\left(\frac{\frac{4}{3}:\frac{8}{18}}{\frac{2}{7}\cdot\frac{28}{6}}\right)+\frac{9}{2}\cdot\frac{4}{3}$ $\left[\frac{35}{4}\right]$

7. $\left\{\left[\frac{13}{7}-\left(1-\frac{1}{2}\right)^2\right]:\left[\left(1-\frac{1}{7}\right)-\left(\frac{1}{2}\right)^2\right]\right\}\cdot\frac{14}{45}-\left(1-\frac{1}{2}\right)$ $\left[\frac{11}{34}\right]$

8. $\left\{\frac{1}{4}\cdot\left[\left(\frac{7}{6}+\frac{5}{3}\right)\cdot\left(\frac{1}{12}+\frac{3}{4}\right)\right]\right\}:\left\{\left[\left(\frac{8}{5}+\frac{7}{2}\right)+\left(\frac{5}{2}-\frac{3}{5}\right)\right]-\left(\frac{7}{9}:\frac{21}{36}\right)\right\}$ $\left[\frac{5}{48}\right]$

9. $\left\{\left(\frac{1}{2}\cdot\frac{8}{3}\right)^2+\left[\left(\frac{5}{2}-\frac{12}{7}\right):\left(\frac{5}{3}+\frac{7}{9}\right)\right]:\left[\frac{\frac{5}{2}}{\frac{7}{4}-\frac{7}{9}}\right]\right\}\cdot\frac{36}{5}$ $\left[\frac{137}{10}\right]$

10. $\left[\left(\frac{3}{14}+\frac{2}{7}\right)\cdot\left(\frac{12}{15}-\frac{2}{5}\right)\right]\cdot\left(\frac{7}{4}-\frac{5}{6}+\frac{17}{12}\right)-\frac{128}{5}:\frac{64}{15}+\frac{2}{3}-\left[\left(\frac{3}{2}\right)^3:\frac{9}{4}\right]$ $\left[\frac{43}{15}\right]$

11. $\left[\left(\frac{12}{45}\cdot\frac{15}{24}\right):\left(\frac{21}{32}\cdot\frac{24}{7}\right)\right]:\left\{\frac{1}{2}+\left(\frac{2}{3}-\frac{3}{8}+\frac{7}{12}\right):\left[\left(\frac{4}{3}-\frac{5}{6}\right)\cdot\left(\frac{13}{6}-\frac{5}{3}\right)\right]\right\}$ $\left[\frac{2}{45}\right]$

12. $\left\{\left[\left(\frac{2}{3}\right)^2+\frac{5}{3}+\frac{4}{3}\right]:\frac{8}{27}\cdot\left[\left(\frac{8}{5}-\frac{3}{15}\right)+\left(\frac{3}{4}+\frac{2}{8}\right)\right]\right\}-\left\{\left[\left(\frac{7}{3}+\frac{5}{6}\right):\left(\frac{7}{9}-\frac{2}{3}\right)\right]-\left(\frac{4}{5}\cdot\frac{45}{8}\right)\right\}$

$\left[\frac{39}{10}\right]$