Espressioni con frazioni di frazioni. Livello base. Completi di soluzione guidata.
Evaluating Expressions Involving Complex Fractions – With solutions

1. $\dfrac{1-\frac{1}{3}}{1-\frac{1}{2}}$ soluzione

2. $\dfrac{\frac{1}{5}}{1-\frac{1}{2}+\frac{1}{5}}$ soluzione

3. $\dfrac{2+\frac{2}{3}}{1-\frac{1}{2}}$ $\left[\frac{16}{3}\right]$ soluzione

4. $\dfrac{1-\frac{1}{3}}{1+\frac{1}{3}}$ $\left[\frac{1}{2}\right]$ soluzione

5. $\dfrac{2-\frac{1}{4}}{2+\frac{1}{4}}$ $\left[\frac{7}{9}\right]$ soluzione

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

7. $\dfrac{\left(\frac{7}{2}-3\right)\cdot 2}{\left(1+\frac{5}{8}\right):\frac{13}{2}}$ [4] soluzione

8. $\dfrac{\frac{1}{4}+\frac{2}{3}}{1-\frac{1}{3}}-\frac{5}{4}$ $\left[\frac{1}{8}\right]$ soluzione

9. $\dfrac{\left(\frac{7}{2}+\frac{1}{3}\right):\left(7+\frac{2}{3}\right)}{\left(1+\frac{5}{4}\right):5}$ $\left[\frac{10}{9}\right]$ soluzione

10. $\dfrac{\frac{6}{5}-\frac{10}{9}}{\left(\frac{5}{4}+\frac{1}{20}\right)\cdot\frac{1}{9}}$ $\left[\frac{2}{3}\right]$ soluzione

11. $\dfrac{\left(1+\frac{1}{3}\right)\cdot\left(1-\frac{1}{2}\right):\left(1-\frac{1}{2}\right)}{\left(\frac{3}{2}-1\right)\cdot 2+\frac{1}{4}}$ $\left[\frac{16}{15}\right]$ soluzione

12. $\dfrac{\left(\frac{2}{3}-\frac{1}{2}\right):\frac{7}{3}}{\frac{5}{9}\cdot\left(1-\frac{7}{10}\right)}$ $\left[\frac{3}{7}\right]$ soluzione

13. $\dfrac{\frac{7}{6}+\frac{5}{3}-\frac{1}{2}}{\left(\frac{11}{12}+\frac{1}{3}\right)-\frac{1}{4}}$ $\left[\frac{7}{3}\right]$ soluzione

14. $1-\dfrac{\frac{13}{18}}{1+\frac{1}{9}}+\dfrac{\frac{7}{16}}{\frac{21}{20}}$ $\left[\frac{2}{3}\right]$ soluzione

15. $\dfrac{1}{1+\dfrac{1}{1+\frac{1}{3}}}$ $\left[\frac{4}{7}\right]$ soluzione

16. $\dfrac{1}{1+\dfrac{1}{1+\frac{1}{2}}}$ $\left[\frac{3}{5}\right]$ soluzione

17. $\dfrac{2\cdot\left(\frac{1}{3}+2\right)}{3}-\dfrac{3\cdot\frac{1}{3}-1}{2}$ soluzione

18. $\dfrac{\frac{4}{3}}{1-\dfrac{2}{3+\dfrac{1}{2-\frac{1}{3}}}}$ soluzione

19. $\dfrac{1}{1+\dfrac{1}{1+\frac{1}{7}}}$ soluzione

Soluzioni

$$\frac{1-\frac{1}{3}}{1-\frac{1}{2}}$$

Risoluzione diretta	Passando per il quoziente
$=\frac{\frac{3-1}{3}}{\frac{2-1}{2}}=$ $=\frac{\frac{2}{3}}{\frac{1}{2}}=$ $=\frac{2}{3}:\frac{1}{2}=$ $=\frac{2}{3}\cdot\frac{2}{1}=\frac{4}{3}$	$\left(1-\frac{1}{3}\right):\left(1-\frac{1}{2}\right)=$ $=\left(\frac{3-1}{3}\right):\left(\frac{2-1}{2}\right)=$ $=\frac{2}{3}:\frac{1}{2}=$ $=\frac{2}{3}\cdot\frac{2}{1}=\frac{4}{3}$

$$\frac{\frac{1}{5}}{1-\frac{1}{2}+\frac{1}{5}}$$

Risoluzione diretta	Passando per il quoziente
$=\frac{\frac{1}{5}}{\frac{10-5+2}{10}}=$ $=\frac{\frac{1}{5}}{\frac{7}{10}}=$ $=\frac{1}{5}:\frac{7}{10}=$ $=\frac{1}{5}\cdot\frac{10}{2}=\frac{2}{7}$	$\frac{1}{5}:\left(1-\frac{1}{2}+\frac{1}{5}\right)=$ $=\frac{1}{5}:\frac{10-5+2}{10}=$ $=\frac{1}{5}:\frac{7}{10}=$ $=\frac{1}{5}\cdot\frac{10}{2}=\frac{2}{7}$

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

$$=\frac{\frac{6+2}{3}}{\frac{2-1}{2}}=$$

$$=\frac{\frac{8}{3}}{\frac{1}{2}}=\frac{8}{3}\cdot\frac{2}{1}=\frac{16}{3}$$

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

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

$$=\frac{\frac{2}{3}}{\frac{4}{3}}=\frac{2}{3}\cdot\frac{3}{4}=\frac{1}{2}$$

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

$$=\frac{\frac{8-1}{4}}{\frac{8+1}{4}}=$$

$$=\frac{\frac{7}{4}}{\frac{9}{4}}=$$

$$=\frac{7}{4}\cdot\frac{4}{9}=\frac{7}{9}$$

$$\frac{\left(1-\frac{5}{9}\right):\left(1-\frac{3}{5}\right)}{\left(2+\frac{1}{3}\right)-\left(1+\frac{1}{2}\right)}=$$

$$=\frac{\left(\frac{9-5}{9}\right):\left(\frac{5-3}{5}\right)}{\left(\frac{6+1}{3}\right)-\left(\frac{2+1}{72}\right)}=$$

$$=\frac{\frac{4}{9}\cdot\frac{5}{2}}{\frac{7}{3}-\frac{3}{2}}=$$

$$=\frac{\frac{10}{9}}{\frac{14-9}{6}}=$$

$$=\frac{\frac{10}{9}}{\frac{5}{6}}=$$

$$=\frac{10}{9}\cdot\frac{6}{5}=\frac{4}{3}$$

$$\frac{\left(\frac{7}{2}-3\right)\cdot 2}{\left(1+\frac{5}{8}\right):\frac{13}{2}}=$$

$$=\frac{\left(\frac{7-6}{2}\right)\cdot 2}{\left(\frac{8+5}{8}\right)\cdot\frac{2}{13}}=$$

$$=\frac{\left(\frac{1}{2}\right)\cdot 2}{\left(\frac{13}{8}\right)\cdot\frac{2}{13}}=\frac{1}{\frac{1}{4}}=1\cdot\frac{4}{1}=4$$

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

$$=\frac{3+8}{12}:\frac{3-1}{3}-\frac{5}{4}=$$

$$=\frac{11}{{}_4\cancel{12}}:\frac{2}{\cancel{3}_1}-\frac{5}{4}=$$

$$=\frac{11}{4}\cdot\frac{1}{2}-\frac{5}{4}=$$

$$=\frac{11}{8}-\frac{5}{4}=$$

$$=\frac{11-10}{8}=\frac{1}{8}$$

$$\frac{\left(\frac{7}{2}+\frac{1}{3}\right):\left(7+\frac{2}{3}\right)}{\left(1+\frac{5}{4}\right):5}=$$

$$=\frac{\left(\frac{21+2}{6}\right):\left(\frac{21+2}{3}\right)}{\left(\frac{4+5}{4}\right)\cdot\frac{1}{5}}=$$

$$=\frac{\frac{23}{6}\cdot\frac{3}{23}}{\left(\frac{9}{4}\right)\cdot\frac{1}{5}}=$$

$$=\frac{\frac{1}{2}}{\frac{9}{20}}=\frac{1}{2}\cdot\frac{20}{9}=\frac{10}{9}$$

$$\frac{\frac{6}{5}-\frac{10}{9}}{\left(\frac{5}{4}+\frac{1}{20}\right)\cdot\frac{1}{9}}=$$

$$=\frac{\frac{54-50}{45}}{\left(\frac{25-1}{20}\right)\cdot\frac{1}{9}}=$$

$$=\frac{\frac{4}{45}}{\left(\frac{24}{20}\right)\cdot\frac{1}{9}}=$$

$$=\frac{\frac{4}{45}}{\left(\frac{6}{5}\right)\cdot\frac{1}{9}}=\left(\frac{4}{45}\cdot\frac{5}{6}\cdot\frac{9}{1}\right)=\frac{2}{3}$$

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

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

$$=\frac{\frac{4}{3}}{1+\frac{1}{4}}=\frac{4}{3}\cdot\frac{4}{5}=\frac{16}{15}$$

$$\frac{\left(\frac{2}{3}-\frac{1}{2}\right)\div\frac{7}{3}}{\frac{5}{9}\cdot\left(1-\frac{7}{10}\right)}=$$

$$=\frac{\left(\frac{4-3}{6}\right)\cdot\frac{3}{7}}{\frac{5}{9}\cdot\left(\frac{10-7}{10}\right)}=$$

$$=\frac{\left(\frac{1}{6}\right)\cdot\frac{3}{7}}{\frac{5}{9}\cdot\left(\frac{3}{10}\right)}=$$

$$=\frac{\frac{1}{14}}{\frac{1}{6}}=\left(\frac{1}{14}\cdot\frac{6}{1}\right)=\frac{3}{7}$$

$$\frac{\frac{7}{6}+\frac{5}{3}-\frac{1}{2}}{\left(\frac{11}{12}+\frac{1}{3}\right)-\frac{1}{4}}=$$

$$\frac{\frac{7+10-3}{6}}{\left(\frac{11+4}{12}\right)-\frac{1}{4}}=$$

$$=\frac{\frac{14}{6}}{\frac{15}{12}-\frac{1}{4}}=$$

$$=\frac{\frac{14}{6}}{\frac{15-3}{12}}=$$

$$=\frac{\frac{7}{3}}{\frac{12}{12}}=\frac{\frac{7}{3}}{1}=\frac{7}{3}$$

$$1-\frac{\frac{13}{18}}{1+\frac{1}{9}}+\frac{\frac{7}{16}}{\frac{21}{20}}=$$

$$=\frac{18-13}{\frac{18}{9+1}}+\frac{7}{16}\cdot\frac{20}{21}=$$

$$=\frac{5}{18}\cdot\frac{9}{10}+\frac{1}{4}\cdot\frac{5}{3}=$$

$$=\frac{1}{2}\cdot\frac{1}{2}+\frac{5}{12}=\frac{1}{4}+\frac{5}{12}=\frac{3+5}{12}=\frac{8}{12}=\frac{2}{3}$$

$$\frac{1}{1+\frac{1}{1+\frac{1}{3}}}=$$

$$=\frac{1}{1+\frac{1}{\frac{3+1}{3}}}=$$

$$=\frac{1}{1+\frac{1}{\frac{4}{3}}}=$$

$$=\frac{1}{1+1:\frac{4}{3}}=$$

$$=\frac{1}{1+1\cdot\frac{3}{4}}=$$

$$=\frac{1}{1+\frac{3}{4}}=$$

$$=\frac{1}{\frac{4+3}{4}}=\frac{1}{\frac{7}{4}}=1:\frac{4}{7}=1\cdot\frac{7}{4}=\frac{4}{7}$$

$$\frac{1}{1+\frac{1}{1+\frac{1}{2}}}=$$
$$=\frac{1}{1+\frac{1}{\frac{2+1}{2}}}=$$
$$=\frac{1}{1+\frac{1}{\frac{3}{2}}}=$$
$$=\frac{1}{1+1:\frac{3}{2}}=$$
$$=\frac{1}{1+1\cdot\frac{2}{3}}=$$
$$=\frac{1}{1+\frac{2}{3}}=$$
$$=\frac{1}{\frac{3+2}{3}}=$$
$$=\frac{1}{\frac{5}{3}}=$$
$$=1:\frac{5}{3}=1\cdot\frac{3}{5}=\frac{3}{5}$$

$$\frac{2\cdot\left(\frac{1}{3}+2\right)}{3}-\frac{3\cdot\frac{1}{3}-1}{2}=$$
$$=\frac{2\cdot\frac{7}{3}}{3}-\frac{1-1}{2}=$$
$$=\frac{2\cdot\frac{7}{3}}{3}-\frac{1-1}{2}=$$
$$=\frac{14}{3}\cdot\frac{1}{3}=\frac{14}{9}$$

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

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

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

$$=\frac{\frac{4}{3}}{1-\frac{2}{\frac{18}{5}}}=$$

$$=\frac{\frac{4}{3}}{1-\frac{5}{9}}=\frac{\frac{4}{3}}{\frac{4}{9}}=\frac{4}{3}\cdot\frac{9}{4}=3$$

$$\frac{1}{1+\frac{1}{1+\frac{1}{7}}}=$$

$$=\frac{1}{1+\frac{1}{\frac{7+1}{7}}}=$$

$$=\frac{1}{1+\frac{1}{\frac{8}{7}}}=$$

$$=\frac{1}{1+\frac{7}{8}}=\frac{1}{\frac{8+7}{8}}=\frac{1}{\frac{15}{8}}=\frac{8}{15}$$

Keywords

Matematica, Aritmetica, Frazioni, Espressioni Q, addizione, sottrazione, moltiplicazione, divisione, esercizi con soluzioni

Math, Arithmetic, Fraction expressions, Fraction, Expression, Addition, Subtraction, Multiplication, Division, Fraction expressions solved

Matemática, Aritmética, Fracción, Expresiones, Resta, Sustracción, Suma, Adición, Multiplicación, División

Mathématique, Arithmétique, Fraction, Problèmes avec fractions, Addition, Soustraction, *Multiplication, Division*

Mathematik, Arithmetik, Bruchrechnung, Bruch, Subtraktion, Addition, Multiplikation, Division

Arabic:	كَسْر
Chinese (Simplified):	分数
Chinese (Traditional):	分數
Czech:	zlomek
Danish:	brøkdel
Dutch:	deel, breuk
Estonian:	murd(arv)
Finnish:	murtoluku
French:	fraction
Greek:	κλάσμα
Hungarian:	hányad, tört(rész)
Icelandic:	brot
Indonesian:	pecahan
Japanese:	分数
Korean:	분수
Lithuanian:	trupmena
Norwegian:	brøk(del)
Polish:	ułamek
Portuguese (Brazil):	fração
Portuguese (Portugal):	fracção
Romanian:	fracţie
Russian:	дробь
Slovak:	zlomok
Slovenian:	ulomek
Swedish:	del
Turkish:	kesir