

Bruchrechnen: Grundrechenarten

Berechne Brüche mit Addition, Subtraktion, Multiplikation und Division. Wandle gemischte Zahlen zuerst in unechte Brüche um und vereinfache jedes Resultat vollständig.

Für Feedback und Anregungen bitte E-Mail an uebungsblaetter.ch@gmail.com.

1) $\frac{3}{4} + \frac{5}{6}$

9) $-\frac{7}{8} + \frac{5}{12} - \frac{1}{6}$

2) $\frac{7}{10} - \frac{2}{15}$

10) $\frac{9}{14} \cdot \frac{21}{25} \cdot \frac{10}{27}$

3) $-\frac{5}{8} + \frac{3}{20}$

11) $\frac{15}{28} : \frac{25}{42} \cdot \frac{7}{9}$

4) $\frac{14}{25} \cdot \frac{15}{21}$

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

5) $-\frac{9}{16} : \frac{27}{40}$

13) $2\frac{3}{5} + 1\frac{7}{10} - 3\frac{1}{4}$

6) $2\frac{1}{3} - 1\frac{5}{6}$

14) $-\frac{4}{9} \cdot \frac{15}{8} + \frac{7}{12}$

7) $\frac{5}{6} + \frac{7}{12} - \frac{3}{8}$

15) $\frac{5}{6} : \left(-\frac{10}{9}\right) - \frac{3}{5} \cdot \frac{25}{18}$

8) $\frac{11}{15} - \frac{2}{9} + \frac{5}{18}$

16) $\left(\frac{7}{10} - \frac{1}{4}\right) \cdot \left(\frac{8}{9} + \frac{3}{2}\right)$

Lösungen

Grundrechenarten

$$1) \frac{3}{4} + \frac{5}{6} = \frac{9}{12} + \frac{10}{12} = \boxed{\frac{19}{12}}$$

$$2) \frac{7}{10} - \frac{2}{15} = \frac{21}{30} - \frac{4}{30} = \boxed{\frac{17}{30}}$$

$$3) -\frac{5}{8} + \frac{3}{20} = -\frac{25}{40} + \frac{6}{40} = \boxed{-\frac{19}{40}}$$

$$4) \frac{14}{25} \cdot \frac{15}{21} = \frac{2}{5} \cdot \frac{3}{3} = \boxed{\frac{2}{5}}$$

$$5) -\frac{9}{16} : \frac{27}{40} = -\frac{9}{16} \cdot \frac{40}{27} = \boxed{-\frac{5}{6}}$$

$$6) 2\frac{1}{3} - 1\frac{5}{6} = \frac{7}{3} - \frac{11}{6} = \frac{14}{6} - \frac{11}{6} = \boxed{\frac{1}{2}}$$

$$7) \frac{5}{6} + \frac{7}{12} - \frac{3}{8} = \frac{20}{24} + \frac{14}{24} - \frac{9}{24} = \boxed{\frac{25}{24}}$$

$$8) \frac{11}{15} - \frac{2}{9} + \frac{5}{18} = \frac{66}{90} - \frac{20}{90} + \frac{25}{90} = \boxed{\frac{71}{90}}$$

$$9) -\frac{7}{8} + \frac{5}{12} - \frac{1}{6} = -\frac{21}{24} + \frac{10}{24} - \frac{4}{24} = \boxed{-\frac{5}{8}}$$

$$10) \frac{9}{14} \cdot \frac{21}{25} \cdot \frac{10}{27} = \boxed{\frac{1}{5}}$$

$$11) \frac{15}{28} : \frac{25}{42} \cdot \frac{7}{9} = \frac{15}{28} \cdot \frac{42}{25} \cdot \frac{7}{9} = \boxed{\frac{7}{10}}$$

$$12) \left(\frac{3}{4} + \frac{5}{6}\right) : \left(\frac{7}{3} - \frac{11}{6}\right) = \frac{19}{12} : \frac{1}{2} = \boxed{\frac{19}{6}}$$

$$13) 2\frac{3}{5} + 1\frac{7}{10} - 3\frac{1}{4} = \frac{13}{5} + \frac{17}{10} - \frac{13}{4} = \boxed{\frac{21}{20}}$$

$$14) -\frac{4}{9} \cdot \frac{15}{8} + \frac{7}{12} = -\frac{5}{6} + \frac{7}{12} = \boxed{-\frac{1}{4}}$$

$$15) \frac{5}{6} : \left(-\frac{10}{9}\right) - \frac{3}{5} \cdot \frac{25}{18} = -\frac{3}{4} - \frac{5}{6} = \boxed{-\frac{19}{12}}$$

$$16) \left(\frac{7}{10} - \frac{1}{4}\right) \cdot \left(\frac{8}{9} + \frac{3}{2}\right) = \frac{9}{20} \cdot \frac{43}{18} = \boxed{\frac{43}{40}}$$