

Mathematikaufgaben

> Algebra

> Bruchrechnung

Aufgabe: Führe die Addition oder Subtraktion von zwei Brüchen durch:

a) $\frac{1}{5} + \frac{3}{5} = ?$

b) $\frac{4}{7} - \frac{2}{7} = ?$

c) $\frac{5}{3} + \frac{2}{3} = ?$

d) $\frac{7}{11} - \frac{3}{11} = ?$

e) $\frac{5}{6} - \frac{1}{6} = ?$

f) $\frac{3}{4} + \frac{1}{4} = ?$

g) $\frac{5}{2} + \frac{11}{2} = ?$

h) $\frac{12}{17} + \frac{9}{17} = ?$

i) $\frac{19}{20} - \frac{7}{20} = ?$

j) $\frac{1}{23} + \frac{11}{23} = ?$

k) $\frac{14}{19} - \frac{8}{19} = ?$

l) $\frac{7}{8} + 1\frac{3}{8} = ?$

m) $\frac{16}{5} + 2\frac{1}{5} = ?$

n) $1\frac{2}{3} + 3\frac{1}{3} = ?$

o) $4\frac{1}{7} - 2\frac{5}{7} = ?$

p) $\frac{7}{15} + 3\frac{11}{15} = ?$

q) $2\frac{3}{4} - 1\frac{1}{4} = ?$

r) $5\frac{3}{8} - 2\frac{5}{8} = ?$

s) $6\frac{7}{10} + 3\frac{3}{10} = ?$

t) $\frac{27}{25} + 2\frac{11}{25} = ?$

Lösungen: Anwendung der Bruchgesetze (Kürzen der Brüche, Umwandlung von gemischten in unechte Brüche, Erweitern von Brüchen, Addition/Subtraktion gleichnamiger Brüche, Kürzen des Ergebnisbruchs, Umwandlung von unechtem in gemischten Bruch) führt auf die folgenden Ergebnisse:

a) $\frac{1}{5} + \frac{3}{5} = \frac{4}{5}$

b) $\frac{4}{7} - \frac{2}{7} = \frac{2}{7}$

c) $\frac{5}{3} + \frac{2}{3} = \frac{7}{3} = 2\frac{1}{3}$

d) $\frac{7}{11} - \frac{3}{11} = \frac{4}{11}$

e) $\frac{5}{6} - \frac{1}{6} = \frac{4}{6} = \frac{2}{3}$

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

g) $\frac{5}{2} + \frac{11}{2} = \frac{16}{2} = \frac{8}{1} = 8$

h) $\frac{12}{17} + \frac{9}{17} = \frac{21}{17} = 1\frac{4}{17}$

i) $\frac{19}{20} - \frac{7}{20} = \frac{12}{20} = \frac{3}{5}$

j) $\frac{1}{23} + \frac{11}{23} = \frac{12}{23}$

k) $\frac{14}{19} - \frac{8}{19} = \frac{6}{19}$

l) $\frac{7}{8} + 1\frac{3}{8} = \frac{7}{8} + \frac{11}{8} = \frac{18}{8} = \frac{9}{4} = 2\frac{1}{4}$

m) $\frac{16}{5} + 2\frac{1}{5} = \frac{16}{5} + \frac{11}{5} = \frac{27}{5} = 5\frac{2}{5}$

n) $1\frac{2}{3} + 3\frac{1}{3} = \frac{5}{3} + \frac{10}{3} = \frac{15}{3} = \frac{5}{1} = 5$

o) $4\frac{1}{7} - 2\frac{5}{7} = \frac{29}{7} - \frac{19}{7} = \frac{10}{7} = 1\frac{3}{7}$

p) $\frac{7}{15} + 3\frac{11}{15} = \frac{7}{15} + \frac{56}{15} = \frac{63}{15} = \frac{21}{5} = 4\frac{1}{5}$

q) $2\frac{3}{4} - 1\frac{1}{4} = \frac{11}{4} - \frac{5}{4} = \frac{6}{4} = \frac{3}{2} = 1\frac{1}{2}$

r) $5\frac{3}{8} - 2\frac{5}{8} = \frac{43}{8} - \frac{21}{8} = \frac{22}{8} = \frac{11}{4} = 2\frac{3}{4}$

s) $6\frac{7}{10} + 3\frac{3}{10} = \frac{67}{10} + \frac{33}{10} = \frac{100}{10} = \frac{10}{1} = 10$

t) $\frac{27}{25} + 2\frac{11}{25} = \frac{27}{25} + \frac{61}{25} = \frac{88}{25} = 3\frac{13}{25}$