

Mathematikaufgaben

> Algebra

> Bruchrechnung

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

a) $\frac{1}{2} + \frac{3}{8} = ?$

b) $\frac{3}{4} + \frac{1}{2} = ?$

c) $\frac{5}{8} + \frac{9}{16} = ?$

d) $\frac{1}{4} + \frac{1}{32} = ?$

e) $\frac{2}{3} + \frac{8}{9} = ?$

f) $\frac{1}{3} + \frac{5}{12} = ?$

g) $\frac{5}{6} + \frac{5}{12} = ?$

h) $\frac{7}{9} + \frac{11}{18} = ?$

i) $\frac{25}{36} + \frac{8}{9} = ?$

j) $\frac{2}{5} + \frac{7}{10} = ?$

k) $\frac{4}{5} + \frac{9}{10} = ?$

l) $\frac{13}{20} + \frac{3}{5} = ?$

m) $\frac{11}{17} + \frac{21}{34} = ?$

n) $\frac{8}{21} + \frac{17}{42} = ?$

o) $\frac{10}{21} + \frac{6}{7} = ?$

p) $\frac{13}{22} + \frac{9}{11} = ?$

q) $\frac{7}{11} + \frac{4}{33} = ?$

r) $\frac{8}{25} + \frac{17}{50} = ?$

s) $\frac{43}{50} + \frac{4}{5} = ?$

t) $\frac{37}{50} + \frac{3}{10} = ?$

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) $\frac{1}{2} + \frac{3}{8} = \frac{4}{8} + \frac{3}{8} = \frac{7}{8}$

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

c) $\frac{5}{8} + \frac{9}{16} = \frac{10}{16} + \frac{9}{16} = \frac{19}{16} = 1\frac{3}{16}$

d) $\frac{1}{4} + \frac{1}{32} = \frac{8}{32} + \frac{1}{32} = \frac{9}{32}$

e) $\frac{2}{3} + \frac{8}{9} = \frac{6}{9} + \frac{8}{9} = \frac{14}{9} = 1\frac{5}{9}$

f) $\frac{1}{3} + \frac{5}{12} = \frac{4}{12} + \frac{5}{12} = \frac{9}{12} = \frac{3}{4}$

g) $\frac{5}{6} + \frac{5}{12} = \frac{10}{12} + \frac{5}{12} = \frac{15}{12} = \frac{5}{4} = 1\frac{1}{4}$

h) $\frac{7}{9} + \frac{11}{18} = \frac{14}{18} + \frac{11}{18} = \frac{25}{18} = 1\frac{7}{18}$

i) $\frac{25}{36} + \frac{8}{9} = \frac{25}{36} + \frac{32}{36} = \frac{57}{36} = \frac{19}{12} = 1\frac{7}{12}$

j) $\frac{2}{5} + \frac{7}{10} = \frac{4}{10} + \frac{7}{10} = \frac{11}{10} = 1\frac{1}{10}$

k) $\frac{4}{5} + \frac{9}{10} = \frac{8}{10} + \frac{9}{10} = \frac{17}{10} = 1\frac{7}{10}$

l) $\frac{13}{20} + \frac{3}{5} = \frac{13}{20} + \frac{12}{20} = \frac{25}{20} = \frac{5}{4} = 1\frac{1}{4}$

m) $\frac{11}{17} + \frac{21}{34} = \frac{22}{34} + \frac{21}{34} = \frac{43}{34} = 1\frac{9}{34}$

n) $\frac{8}{21} + \frac{17}{42} = \frac{16}{42} + \frac{17}{42} = \frac{33}{42} = \frac{11}{14}$

o) $\frac{10}{21} + \frac{6}{7} = \frac{10}{21} + \frac{18}{21} = \frac{28}{21} = \frac{4}{3} = 1\frac{1}{3}$

p) $\frac{13}{22} + \frac{9}{11} = \frac{13}{22} + \frac{18}{22} = \frac{31}{22} = 1\frac{9}{22}$

q) $\frac{7}{11} + \frac{4}{33} = \frac{21}{33} + \frac{4}{33} = \frac{25}{33}$

r) $\frac{8}{25} + \frac{17}{50} = \frac{16}{50} + \frac{17}{50} = \frac{33}{50}$

s) $\frac{43}{50} + \frac{4}{5} = \frac{43}{50} + \frac{40}{50} = \frac{83}{50} = 1\frac{33}{50}$

t) $\frac{37}{50} + \frac{3}{10} = \frac{37}{50} + \frac{15}{50} = \frac{52}{50} = \frac{26}{25} = 1\frac{1}{25}$