

Brüche subtrahieren

Aufgabe

Subtrahieren Sie die folgenden Brüche und kürzen Sie das Ergebnis so weit wie möglich.

a) $\frac{9}{2} - \frac{10}{7}$

b) $\frac{8}{7} - \frac{1}{5}$

c) $\frac{5}{2} - \frac{1}{8}$

d) $\frac{8}{3} - \frac{1}{2}$

e) $\frac{3}{4} - \frac{4}{7}$

f) $\frac{8}{5} - \frac{1}{5}$

g) $\frac{9}{10} - \frac{7}{9}$

h) $\frac{3}{7} - \frac{1}{3}$

i) $\frac{5}{4} - \frac{5}{7}$

j) $\frac{5}{3} - \frac{3}{10}$

k) $\frac{5}{4} - \frac{3}{7}$

l) $\frac{5}{3} - \frac{5}{3}$

m) $\frac{1}{2} - \frac{1}{8}$

n) $\frac{5}{3} - \frac{1}{7}$

o) $\frac{3}{10} - \frac{1}{8}$

p) $\frac{8}{5} - \frac{10}{7}$

q) $\frac{5}{3} - \frac{8}{7}$

r) $\frac{5}{3} - \frac{3}{4}$

s) $\frac{5}{6} - \frac{1}{4}$

t) $\frac{7}{4} - \frac{6}{7}$

u) $\frac{10}{3} - \frac{1}{2}$

v) $\frac{6}{7} - \frac{2}{3}$

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

x) $\frac{5}{4} - \frac{9}{8}$

y) $\frac{7}{2} - \frac{5}{2}$

z) $\frac{5}{4} - \frac{4}{9}$

Rechenweg

$$a) \frac{9}{2} - \frac{10}{7} = \frac{9 \cdot 7}{2 \cdot 7} - \frac{10 \cdot 2}{7 \cdot 2} = \frac{63}{14} - \frac{20}{14} = \frac{63 - 20}{14} = \frac{43}{14}$$

$$b) \frac{8}{7} - \frac{1}{5} = \frac{8 \cdot 5}{7 \cdot 5} - \frac{1 \cdot 7}{5 \cdot 7} = \frac{40}{35} - \frac{7}{35} = \frac{40 - 7}{35} = \frac{33}{35}$$

$$c) \frac{5}{2} - \frac{1}{8} = \frac{5 \cdot 4}{2 \cdot 4} - \frac{1}{8} = \frac{20}{8} - \frac{1}{8} = \frac{20 - 1}{8} = \frac{19}{8}$$

$$d) \frac{8}{3} - \frac{1}{2} = \frac{8 \cdot 2}{3 \cdot 2} - \frac{1 \cdot 3}{2 \cdot 3} = \frac{16}{6} - \frac{3}{6} = \frac{16 - 3}{6} = \frac{13}{6}$$

$$e) \frac{3}{4} - \frac{4}{7} = \frac{3 \cdot 7}{4 \cdot 7} - \frac{4 \cdot 4}{7 \cdot 4} = \frac{21}{28} - \frac{16}{28} = \frac{21 - 16}{28} = \frac{5}{28} \quad f) \frac{8}{5} - \frac{1}{5} = \frac{8 - 1}{5} = \frac{7}{5}$$

$$g) \frac{9}{10} - \frac{7}{9} = \frac{9 \cdot 9}{10 \cdot 9} - \frac{7 \cdot 10}{9 \cdot 10} = \frac{81}{90} - \frac{70}{90} = \frac{81 - 70}{90} = \frac{11}{90}$$

$$h) \frac{3}{7} - \frac{1}{3} = \frac{3 \cdot 3}{7 \cdot 3} - \frac{1 \cdot 7}{3 \cdot 7} = \frac{9}{21} - \frac{7}{21} = \frac{9 - 7}{21} = \frac{2}{21}$$

$$i) \frac{5}{4} - \frac{5}{7} = \frac{5 \cdot 7}{4 \cdot 7} - \frac{5 \cdot 4}{7 \cdot 4} = \frac{35}{28} - \frac{20}{28} = \frac{35 - 20}{28} = \frac{15}{28}$$

$$j) \frac{5}{3} - \frac{3}{10} = \frac{5 \cdot 10}{3 \cdot 10} - \frac{3 \cdot 3}{10 \cdot 3} = \frac{50}{30} - \frac{9}{30} = \frac{50 - 9}{30} = \frac{41}{30}$$

$$k) \frac{5}{4} - \frac{3}{7} = \frac{5 \cdot 7}{4 \cdot 7} - \frac{3 \cdot 4}{7 \cdot 4} = \frac{35}{28} - \frac{12}{28} = \frac{35 - 12}{28} = \frac{23}{28} \quad l) \frac{5}{3} - \frac{5}{3} = \frac{5 - 5}{3} = \frac{0}{3} = 0$$

$$m) \frac{1}{2} - \frac{1}{8} = \frac{1 \cdot 4}{2 \cdot 4} - \frac{1}{8} = \frac{4}{8} - \frac{1}{8} = \frac{4 - 1}{8} = \frac{3}{8}$$

$$n) \frac{5}{3} - \frac{1}{7} = \frac{5 \cdot 7}{3 \cdot 7} - \frac{1 \cdot 3}{7 \cdot 3} = \frac{35}{21} - \frac{3}{21} = \frac{35 - 3}{21} = \frac{32}{21}$$

$$o) \frac{3}{10} - \frac{1}{8} = \frac{3 \cdot 4}{10 \cdot 4} - \frac{1 \cdot 5}{8 \cdot 5} = \frac{12}{40} - \frac{5}{40} = \frac{12 - 5}{40} = \frac{7}{40}$$

$$p) \frac{8}{5} - \frac{10}{7} = \frac{8 \cdot 7}{5 \cdot 7} - \frac{10 \cdot 5}{7 \cdot 5} = \frac{56}{35} - \frac{50}{35} = \frac{56 - 50}{35} = \frac{6}{35}$$

$$q) \frac{5}{3} - \frac{8}{7} = \frac{5 \cdot 7}{3 \cdot 7} - \frac{8 \cdot 3}{7 \cdot 3} = \frac{35}{21} - \frac{24}{21} = \frac{35 - 24}{21} = \frac{11}{21}$$

$$r) \frac{5}{3} - \frac{3}{4} = \frac{5 \cdot 4}{3 \cdot 4} - \frac{3 \cdot 3}{4 \cdot 3} = \frac{20}{12} - \frac{9}{12} = \frac{20 - 9}{12} = \frac{11}{12}$$

$$s) \frac{5}{6} - \frac{1}{4} = \frac{5 \cdot 2}{6 \cdot 2} - \frac{1 \cdot 3}{4 \cdot 3} = \frac{10}{12} - \frac{3}{12} = \frac{10 - 3}{12} = \frac{7}{12}$$

$$t) \frac{7}{4} - \frac{6}{7} = \frac{7 \cdot 7}{4 \cdot 7} - \frac{6 \cdot 4}{7 \cdot 4} = \frac{49}{28} - \frac{24}{28} = \frac{49 - 24}{28} = \frac{25}{28}$$

$$u) \frac{10}{3} - \frac{1}{2} = \frac{10 \cdot 2}{3 \cdot 2} - \frac{1 \cdot 3}{2 \cdot 3} = \frac{20}{6} - \frac{3}{6} = \frac{20 - 3}{6} = \frac{17}{6}$$

$$v) \frac{6}{7} - \frac{2}{3} = \frac{6 \cdot 3}{7 \cdot 3} - \frac{2 \cdot 7}{3 \cdot 7} = \frac{18}{21} - \frac{14}{21} = \frac{18 - 14}{21} = \frac{4}{21}$$

$$w) \frac{6}{5} - \frac{1}{3} = \frac{6 \cdot 3}{5 \cdot 3} - \frac{1 \cdot 5}{3 \cdot 5} = \frac{18}{15} - \frac{5}{15} = \frac{18 - 5}{15} = \frac{13}{15}$$

$$x) \frac{5}{4} - \frac{9}{8} = \frac{5 \cdot 2}{4 \cdot 2} - \frac{9}{8} = \frac{10}{8} - \frac{9}{8} = \frac{10 - 9}{8} = \frac{1}{8} \quad y) \frac{7}{2} - \frac{5}{2} = \frac{7 - 5}{2} = \frac{2}{2} = 1$$

$$z) \frac{5}{4} - \frac{4}{9} = \frac{5 \cdot 9}{4 \cdot 9} - \frac{4 \cdot 4}{9 \cdot 4} = \frac{45}{36} - \frac{16}{36} = \frac{45 - 16}{36} = \frac{29}{36}$$

Lösung

a) $\frac{43}{14}$

f) $\frac{7}{5}$

k) $\frac{23}{28}$

p) $\frac{6}{35}$

u) $\frac{17}{6}$

z) $\frac{29}{36}$

b) $\frac{33}{35}$

g) $\frac{11}{90}$

l) 0

q) $\frac{11}{21}$

v) $\frac{4}{21}$

c) $\frac{19}{8}$

h) $\frac{2}{21}$

m) $\frac{3}{8}$

r) $\frac{11}{12}$

w) $\frac{13}{15}$

d) $\frac{13}{6}$

i) $\frac{15}{28}$

n) $\frac{32}{21}$

s) $\frac{7}{12}$

x) $\frac{1}{8}$

e) $\frac{5}{28}$

j) $\frac{41}{30}$

o) $\frac{7}{40}$

t) $\frac{25}{28}$

y) 1