

# Mathematikaufgaben

## > Algebra

### > Bruchrechnung

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**Aufgabe:** Kürze den Bruch

a)  $\frac{12}{32} = ?$

b)  $\frac{16}{72} = ?$

c)  $\frac{21}{35} = ?$

d)  $\frac{42}{51} = ?$

e)  $\frac{24}{40} = ?$

f)  $\frac{39}{143} = ?$

g)  $\frac{27}{63} = ?$

h)  $\frac{35}{65} = ?$

i)  $\frac{75}{210} = ?$

j)  $\frac{36}{60} = ?$

k)  $\frac{49}{70} = ?$

l)  $\frac{16}{120} = ?$

m)  $\frac{18}{81} = ?$

n)  $\frac{108}{144} = ?$

o)  $\frac{45}{171} = ?$

p)  $\frac{117}{221} = ?$

q)  $\frac{70}{154} = ?$

r)  $\frac{90}{126} = ?$

s)  $\frac{84}{133} = ?$

t)  $\frac{56}{80} = ?$

**Lösungen:** Brüche werden gekürzt, indem Zähler und Nenner durch dieselbe (natürliche) Zahl geteilt werden. Es ergibt sich daraus:

$$\text{a) } \frac{12}{32} = \frac{12:4}{32:4} = \frac{3}{8}$$

$$\text{b) } \frac{16}{72} = \frac{16:8}{72:8} = \frac{2}{9}$$

$$\text{c) } \frac{21}{35} = \frac{21:7}{35:7} = \frac{3}{5}$$

$$\text{d) } \frac{42}{51} = \frac{42:3}{51:3} = \frac{14}{17}$$

$$\text{e) } \frac{24}{40} = \frac{24:8}{40:8} = \frac{3}{5}$$

$$\text{f) } \frac{39}{143} = \frac{39:13}{143:13} = \frac{3}{11}$$

$$\text{g) } \frac{27}{63} = \frac{27:9}{63:9} = \frac{3}{7}$$

$$\text{h) } \frac{35}{65} = \frac{35:5}{65:5} = \frac{7}{13}$$

$$\text{i) } \frac{75}{210} = \frac{75:15}{210:15} = \frac{5}{14}$$

$$\text{j) } \frac{36}{60} = \frac{36:12}{60:12} = \frac{3}{5}$$

$$\text{k) } \frac{49}{70} = \frac{49:7}{70:7} = \frac{7}{10}$$

$$\text{l) } \frac{16}{120} = \frac{16:8}{120:8} = \frac{2}{15}$$

$$\text{m) } \frac{18}{81} = \frac{18:9}{81:9} = \frac{2}{9}$$

$$\text{n) } \frac{108}{144} = \frac{108:36}{144:36} = \frac{3}{4}$$

$$\text{o) } \frac{45}{171} = \frac{45:9}{171:9} = \frac{5}{19}$$

$$\text{p) } \frac{117}{221} = \frac{117:13}{221:13} = \frac{9}{17}$$

$$\text{q) } \frac{70}{154} = \frac{70:14}{154:14} = \frac{5}{11}$$

$$\text{r) } \frac{90}{126} = \frac{90:18}{126:18} = \frac{5}{7}$$

$$\text{s) } \frac{84}{133} = \frac{84:7}{133:7} = \frac{12}{19}$$

$$\text{t) } \frac{56}{80} = \frac{56:8}{80:8} = \frac{7}{10}$$