

Brüche kürzen, erweitern, vergleichen 1

1) Kürze so weit wie möglich:

a) $\frac{15}{25} =$ b) $\frac{16}{20} =$ c) $\frac{4}{8} =$ d) $\frac{9}{12} =$
e) $\frac{28}{35} =$ f) $\frac{27}{72} =$ g) $\frac{66}{121} =$ h) $\frac{42}{63} =$
i) $\frac{105}{210} =$ j) $\frac{96}{288} =$ k) $\frac{39}{78} =$ l) $\frac{45}{75} =$

2) Kürzen und erweitern. Fülle die Lücken:

a) $\frac{7}{9} = \frac{\quad}{45}$ b) $\frac{2}{\quad} = \frac{14}{21}$ c) $\frac{27}{36} = \frac{3}{\quad}$ d) $\frac{16}{24} = \frac{4}{\quad}$
e) $\frac{4}{5} = \frac{\quad}{15}$ f) $\frac{54}{72} = \frac{3}{\quad}$ g) $\frac{\quad}{36} = \frac{1}{3}$ h) $\frac{5}{\quad} = \frac{35}{49}$
i) $\frac{6}{11} = \frac{\quad}{33}$ j) $\frac{\quad}{72} = \frac{5}{12}$ k) $\frac{42}{\quad} = \frac{2}{3}$ l) $\frac{28}{36} = \frac{7}{\quad}$

3) Ordne der Größe nach:

a) $\frac{1}{8}$, $\frac{3}{4}$, $\frac{4}{5}$, $\frac{2}{9}$

b) $\frac{7}{12}$, $\frac{2}{3}$, $\frac{3}{5}$, $\frac{5}{9}$

c) $\frac{10}{21}$, $\frac{4}{9}$, $\frac{13}{28}$, $\frac{5}{12}$

d) $\frac{2}{15}$, $\frac{1}{9}$, $\frac{4}{27}$, $\frac{3}{20}$

Lösungen:

1) Kürze so weit wie möglich:

a) $\frac{15}{25} = \frac{3}{5}$ b) $\frac{16}{20} = \frac{4}{5}$ c) $\frac{4}{8} = \frac{1}{2}$ d) $\frac{9}{12} = \frac{3}{4}$

e) $\frac{28}{35} = \frac{4}{5}$ f) $\frac{27}{72} = \frac{3}{8}$ g) $\frac{66}{121} = \frac{6}{11}$ h) $\frac{42}{63} = \frac{2}{3}$

i) $\frac{105}{210} = \frac{1}{2}$ j) $\frac{96}{288} = \frac{1}{3}$ k) $\frac{39}{78} = \frac{1}{2}$ l) $\frac{45}{75} = \frac{3}{5}$

2) Kürzen und erweitern. Fülle die Lücken:

a) $\frac{7}{9} = \frac{35}{45}$ b) $\frac{2}{3} = \frac{14}{21}$ c) $\frac{27}{36} = \frac{3}{4}$ d) $\frac{16}{24} = \frac{4}{6}$

e) $\frac{4}{5} = \frac{12}{15}$ f) $\frac{54}{72} = \frac{3}{4}$ g) $\frac{12}{36} = \frac{1}{3}$ h) $\frac{5}{7} = \frac{35}{49}$

i) $\frac{6}{11} = \frac{18}{33}$ j) $\frac{30}{72} = \frac{5}{12}$ k) $\frac{42}{63} = \frac{2}{3}$ l) $\frac{28}{36} = \frac{7}{9}$

3) Ordne der Größe nach:

a) $\frac{1}{8}$, $\frac{3}{4}$, $\frac{4}{5}$, $\frac{2}{9}$

$$\frac{1}{8} = \frac{45}{360} , \frac{3}{4} = \frac{270}{360} , \frac{4}{5} = \frac{288}{360} , \frac{2}{9} = \frac{80}{360}$$

$$\frac{1}{8} < \frac{2}{9} < \frac{3}{4} < \frac{4}{5}$$

b) $\frac{7}{12}$, $\frac{2}{3}$, $\frac{3}{5}$, $\frac{5}{9}$

$$\frac{7}{12} = \frac{105}{180} , \frac{2}{3} = \frac{120}{180} , \frac{3}{5} = \frac{108}{180} , \frac{5}{9} = \frac{100}{180}$$

$$\frac{5}{9} < \frac{7}{12} < \frac{3}{5} < \frac{2}{3}$$

c) $\frac{10}{21}$, $\frac{4}{9}$, $\frac{13}{28}$, $\frac{5}{12}$

$$\frac{10}{21} = \frac{120}{252} , \frac{4}{9} = \frac{112}{252} , \frac{13}{28} = \frac{117}{252} , \frac{5}{12} = \frac{105}{252}$$

$$\frac{5}{12} < \frac{4}{9} < \frac{13}{28} < \frac{10}{21}$$

d) $\frac{2}{15}$, $\frac{1}{9}$, $\frac{4}{27}$, $\frac{3}{20}$

$$\frac{2}{15} = \frac{72}{540} , \frac{1}{9} = \frac{60}{540} , \frac{4}{27} = \frac{80}{540} , \frac{3}{20} = \frac{81}{540}$$

$$\frac{1}{9} < \frac{2}{15} < \frac{4}{27} < \frac{3}{20}$$