

2 $21A \xrightarrow{\cdot 3} 7A \xrightarrow{\cdot 2} 14A$ 9 Flaschen	$96A \xrightarrow{\cdot 12} 8A \xrightarrow{\cdot 11} 88A$ 56 Kisten	$108A \xrightarrow{\cdot 27} 4A \xrightarrow{\cdot 25} 100A$ 32 Autos
3 40 min	42 min	44 min
4 $\frac{5}{8} < \frac{7}{8}$	$\frac{9}{16} < \frac{9}{13} < \frac{9}{11}$	$\frac{3}{4} < \frac{4}{5} < \frac{6}{7}$
5 $2\frac{3}{4}$	$3\frac{4}{7}$	$5\frac{4}{33}$
6 $\frac{14}{3}$	$\frac{53}{8}$	$\frac{257}{35}$
7		

4 Brüche addieren und subtrahieren

Brüche gleichnamig machen und vergleichen, Seite 28

1 (1) kgV(4; 6) = 12

(2) $\frac{3}{4} = \frac{9}{12}$; $\frac{4}{6} = \frac{8}{12}$

(3) $\frac{9}{12} > \frac{8}{12}$; also $\frac{3}{4} > \frac{4}{6}$

2 a)

(1) kgV(8; 6) = 24

(2) $\frac{3}{8} = \frac{9}{24}$; $\frac{4}{6} = \frac{16}{24}$

(3) $\frac{9}{24} < \frac{16}{24}$; also $\frac{3}{8} < \frac{4}{6}$

c)

(1) kgV(8; 12) = 24

(2) $\frac{5}{8} = \frac{15}{24}$; $\frac{7}{12} = \frac{14}{24}$

(3) $\frac{15}{24} > \frac{14}{24}$; also $\frac{5}{8} > \frac{7}{12}$

3 a) $\frac{2}{3} > \frac{4}{7}$; weil $\frac{2}{3} = \frac{14}{21} > \frac{12}{21} = \frac{4}{7}$

b) $\frac{9}{11} > \frac{5}{8}$; weil $\frac{9}{11} = \frac{72}{88} > \frac{55}{88} = \frac{5}{8}$

c) $\frac{5}{6} > \frac{7}{10}$; weil $\frac{5}{6} = \frac{25}{30} > \frac{21}{30} = \frac{7}{10}$

4 ☆ a) $\frac{5}{6} = \frac{20}{24}$; $\frac{3}{4} = \frac{18}{24}$; $\frac{5}{8} = \frac{15}{24}$

$\frac{5}{8} < \frac{3}{4} < \frac{5}{6}$

c) $\frac{7}{16} = \frac{21}{48}$; $\frac{3}{8} = \frac{18}{48}$; $\frac{2}{3} = \frac{32}{48}$

$\frac{3}{8} < \frac{7}{16} < \frac{2}{3}$

e) $\frac{43}{12}$; $\frac{42}{12}$; $\frac{7}{2} = \frac{42}{12}$

$\frac{7}{2} = \frac{42}{12} < 3\frac{7}{12}$

2.1 a) $\frac{3}{5} < \frac{2}{3}$; denn $\frac{9}{15} < \frac{10}{15}$

c) $\frac{3}{7} < \frac{5}{11}$; denn $\frac{33}{77} < \frac{35}{77}$

e) $\frac{7}{10} > \frac{3}{5}$; denn $\frac{7}{10} > \frac{6}{10}$

g) $\frac{7}{10} < \frac{3}{4}$; denn $\frac{14}{20} < \frac{15}{20}$

2.2 a) $\frac{9}{16} < \frac{15}{18}$; denn $\frac{81}{144} < \frac{120}{144}$

c) $\frac{15}{28} < \frac{40}{21}$; denn $\frac{45}{84} < \frac{160}{84}$

e) $\frac{13}{17} > \frac{26}{51}$; denn $\frac{39}{51} > \frac{26}{51}$

g) $\frac{32}{37} > \frac{16}{19}$; denn $\frac{608}{703} > \frac{592}{703}$

b)

(1) kgV(5; 20) = 20

(2) $\frac{3}{5} = \frac{12}{20}$; $\frac{7}{20}$

(3) $\frac{12}{20} > \frac{7}{20}$; also $\frac{3}{5} > \frac{7}{20}$

b) $\frac{3}{8} = \frac{9}{24}$; $\frac{11}{12} = \frac{22}{24}$; $\frac{5}{6} = \frac{20}{24}$

$\frac{3}{8} < \frac{5}{6} < \frac{11}{12}$

d) $\frac{5}{3} = \frac{50}{30}$; $\frac{8}{5} = \frac{48}{30}$; $\frac{15}{10} = \frac{45}{30}$

$1\frac{5}{10} < 1\frac{3}{5} < 1\frac{2}{3}$

f) $\frac{115}{16}$; $\frac{59}{8} = \frac{118}{16}$; $\frac{29}{4} = \frac{116}{16}$

$7\frac{3}{16} < 2\frac{9}{4} < \frac{59}{8}$

b) $\frac{5}{8} < \frac{7}{10}$; denn $\frac{25}{40} < \frac{28}{40}$

d) $\frac{5}{12} > \frac{3}{8}$; denn $\frac{10}{24} > \frac{9}{24}$

f) $\frac{3}{4} > \frac{7}{12}$; denn $\frac{9}{12} > \frac{7}{12}$

h) $\frac{7}{15} > \frac{2}{5}$; denn $\frac{7}{15} > \frac{6}{15}$

b) $\frac{12}{21} > \frac{18}{35}$; denn $\frac{60}{105} > \frac{54}{105}$

d) $\frac{16}{19} > \frac{15}{38}$; denn $\frac{32}{38} > \frac{15}{38}$

f) $\frac{24}{49} < \frac{33}{14}$; denn $\frac{48}{98} < \frac{231}{98}$

h) $\frac{23}{28} > \frac{4}{35}$; denn $\frac{115}{140} > \frac{16}{140}$

3.1 a) $\frac{5}{18} < \frac{7}{20}$; denn $\frac{50}{180} < \frac{63}{180}$

c) $\frac{3}{7} < \frac{5}{11}$; denn $\frac{33}{77} < \frac{35}{77}$

e) $\frac{7}{10} > \frac{13}{20}$; denn $\frac{14}{20} > \frac{13}{20}$

g) $\frac{15}{100} = \frac{3}{20}$; denn $\frac{15}{100} = \frac{15}{100}$

b) $\frac{7}{6} > \frac{5}{12}$; denn $\frac{14}{12} > \frac{5}{12}$

d) $\frac{2}{3} > \frac{3}{5}$; denn $\frac{10}{15} > \frac{9}{15}$

f) $\frac{5}{4} = \frac{10}{8}$; denn $\frac{10}{8} = \frac{10}{8}$

h) $\frac{15}{12} = \frac{10}{8}$; denn $\frac{30}{24} = \frac{30}{24}$

4.1 ☆ a) $\frac{3}{8} < \frac{1}{2} < \frac{3}{2}$; denn $\frac{3}{8} < \frac{4}{8} < \frac{12}{8}$

b) $\frac{1}{2} < \frac{3}{4} < \frac{5}{6}$; denn $\frac{6}{12} < \frac{9}{12} < \frac{10}{12}$

c) $\frac{3}{6} < \frac{4}{7} < \frac{3}{5}$; denn $\frac{105}{210} < \frac{120}{210} < \frac{126}{210}$

d) $\frac{4}{9} < \frac{5}{7} < \frac{3}{3}$; denn $\frac{28}{63} < \frac{45}{63} < \frac{63}{63}$

Gleichnamige Brüche addieren und subtrahieren, Seite 29

1 a) $\frac{3}{10} + \frac{4}{10} = \frac{7}{10}$

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

2 a) $\frac{6}{8} - \frac{2}{8} = \frac{4}{8} (= \frac{1}{2})$

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

3 a) $\frac{2}{3}$

b) $\frac{4}{8} = \frac{1}{2}$

4 $\frac{60}{25} = \frac{12}{5} = 2\frac{2}{5}$

c) $\frac{76}{32} = \frac{19}{8} = 2\frac{3}{8}$

1.1 a) $\frac{3}{10} + \frac{4}{10} = \frac{7}{10}$

c) $\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$

2.1 a) $\frac{5}{6} - \frac{3}{6} = \frac{2}{6}$

c) $\frac{3}{6} - \frac{2}{6} = \frac{1}{6}$

3.1 a) $\frac{45}{49}$

b) $\frac{18}{50} = \frac{9}{25}$

3.2 a) $\frac{36}{32} = \frac{9}{8} = 1\frac{1}{8}$

d) $\frac{126}{28} = \frac{9}{2} = 4\frac{1}{2}$

g) $\frac{30}{17} = 1\frac{13}{17}$

5 a) $2\frac{1}{3}$

b) $8\frac{2}{5}$

b) $\frac{6}{15} + \frac{6}{15} = \frac{12}{15} (= \frac{4}{5})$

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

b) $\frac{6}{10} - \frac{4}{10} = \frac{2}{10} (= \frac{1}{5})$

d) $\frac{4}{6} - \frac{1}{6} = \frac{3}{6} (= \frac{1}{2})$

c) $\frac{10}{17}$

d) $\frac{14}{21} = \frac{2}{3}$

b) $\frac{34}{20} = \frac{17}{10} = 1\frac{7}{10}$

d) $\frac{28}{16} = \frac{7}{4} = 1\frac{3}{4}$

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

d) $\frac{2}{9} + \frac{5}{9} = \frac{7}{9}$

b) $\frac{6}{10} - \frac{2}{10} = \frac{4}{10}$

d) $\frac{7}{8} - \frac{3}{8} = \frac{4}{8}$

c) $\frac{150}{5} = 30$

d) $\frac{180}{60} = 3$

c) $\frac{63}{63} = 1$

f) 1

h) $\frac{70}{210} = \frac{1}{3}$

c) $6\frac{2}{8} = 6\frac{1}{4}$

d) $14\frac{6}{10} = 14\frac{3}{5}$