

Brüche darstellen

Zu Seite 37

1 -

2 a) $\frac{3}{8}$

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

c) $\frac{1}{6}$

d) $\frac{4}{10}$

e) $\frac{1}{5}$

f) $\frac{3}{9}$

g) $\frac{3}{4}$

3 a) 20 min

b) 45 min

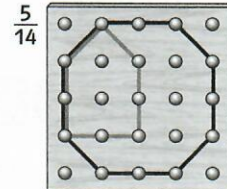
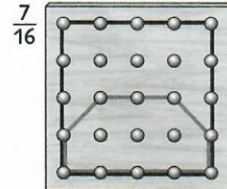
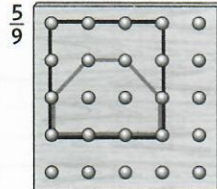
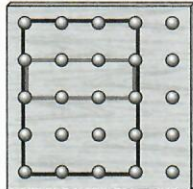
c) 50 min

d) 25 min

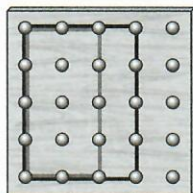
Zu Seite 38

4 Alle Brüche lassen sich in einer Scheibe darstellen: $\frac{16}{100}, \frac{1}{10} = \frac{10}{100}, \frac{2}{10} = \frac{20}{100}, \frac{1}{4} = \frac{25}{100}, \frac{9}{100}$.

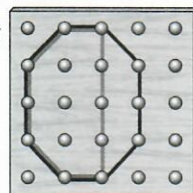
5 $\frac{3}{12}$



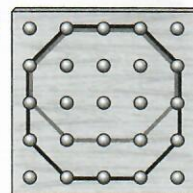
$\frac{2}{3}$



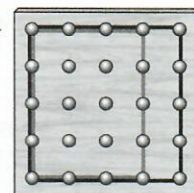
$\frac{7}{10}$



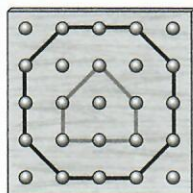
$\frac{5}{7}$



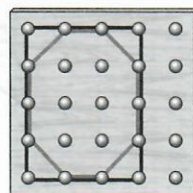
$\frac{3}{4}$



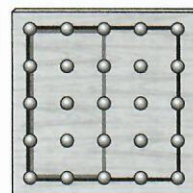
$\frac{3}{14}$



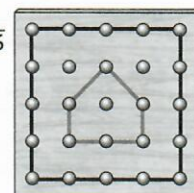
$\frac{5}{6}$



$\frac{4}{8}$



$\frac{3}{16}$



Brüche darstellen

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6 a) $\frac{1}{2}$

b) $\frac{1}{3}$

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

d) $\frac{1}{2}$

e) $\frac{4}{10}$

f) $\frac{7}{10}$

g) $\frac{10}{18}$

h) $\frac{2}{8}$

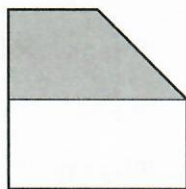
i) $\frac{6}{8}$

k) $\frac{3}{16}$

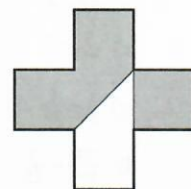
l) $\frac{6}{18}$

m) $\frac{3}{18}$

7 a) $\frac{3}{7}$



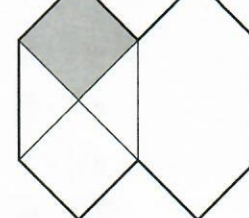
b) $\frac{7}{10}$



c) $\frac{3}{26}$



d) $\frac{1}{6}$



8 in a) $\frac{5}{8}$ als $\frac{10}{16}$

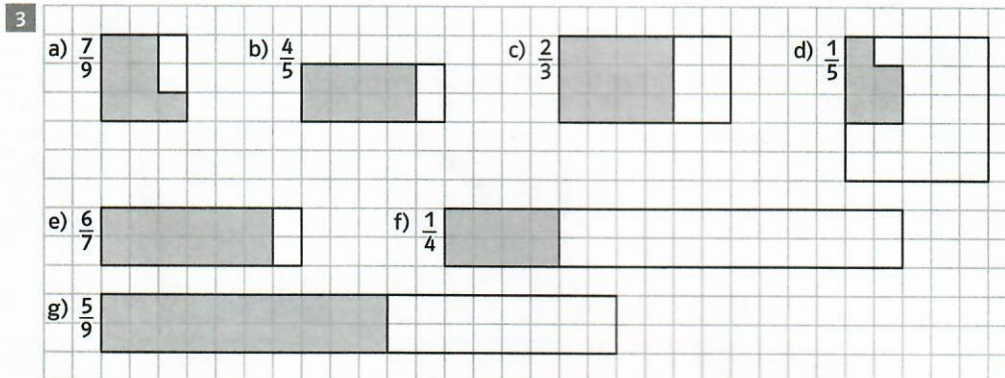
in b) $\frac{3}{20}$

in d) $\frac{3}{5}$ und $\frac{2}{5}$ als $\frac{9}{15}$ und $\frac{6}{15}$

Bruchteile berechnen, das Ganze bestimmen

Zu Seite 40

- 1 a) 6 cm b) 8 cm c) 9 cm d) 10 cm
- 2 a) 40 cm b) 350 g c) 300 € d) 25 m²
 e) 32 m f) 1500 € g) 32 kg h) 30 l
 i) 75 cm k) 1500 m



- 4 a) 60 m b) 100 € c) 20 kg d) 25 l
 e) 35 km f) 900 g g) 6,00 € h) 10,00 m
 i) 7,5 m k) 12,5 kg

Vergrößern und Verfeinern

Zu Seite 41

- 1 a) $\frac{6}{18} = \frac{1}{3}$ b) $\frac{6}{12} = \frac{1}{2}$ c) $\frac{4}{16} = \frac{1}{4}$ d) $\frac{4}{16} = \frac{1}{4}$ e) $\frac{6}{14} = \frac{3}{7}$ f) $\frac{4}{24} = \frac{1}{6}$
- 2 a) $\frac{20}{60} = \frac{1}{3}$ b) $\frac{15}{60} = \frac{1}{4}$ c) $\frac{45}{60} = \frac{3}{4}$ d) $\frac{1}{6} = \frac{10}{60}$ e) $\frac{5}{6} = \frac{50}{60}$ f) $\frac{1}{10} = \frac{6}{60}$
- g) $\frac{6}{12} = \frac{1}{2}$ h) $\frac{6}{24} = \frac{1}{4}$ i) $\frac{4}{16} = \frac{1}{4}$ k) $\frac{1}{8} = \frac{5}{40}$ l) $\frac{1}{3} = \frac{5}{15}$ m) $\frac{3}{5} = \frac{9}{15} = \frac{12}{20}$

Erweitern und Kürzen

Zu Seite 42

- 1 a) $\frac{8}{24} = \frac{1}{3}$ b) $\frac{9}{24} = \frac{3}{8}$ c) $\frac{10}{60} = \frac{1}{6}$
- $\frac{16}{24} = \frac{2}{3}$ $\frac{15}{24} = \frac{5}{8}$ $\frac{50}{60} = \frac{5}{6}$
- d) $\frac{9}{12} = \frac{3}{4}$ e) $\frac{5}{30} = \frac{1}{6}$ f) $\frac{4}{20} = \frac{1}{5}$ g) $\frac{12}{15} = \frac{4}{5}$
- $\frac{3}{12} = \frac{1}{4}$ $\frac{25}{30} = \frac{5}{6}$ $\frac{16}{20} = \frac{4}{5}$ $\frac{3}{15} = \frac{1}{5}$
- 2 a) $\frac{3}{5} = \frac{9}{15}$ b) $\frac{6}{10} = \frac{3}{5}$ c) $\frac{9}{15} = \frac{3}{5}$ d) $\frac{5}{20} = \frac{1}{4}$
- e) $\frac{8}{6} = \frac{24}{18}$ f) $\frac{12}{20} = \frac{3}{5}$ g) $\frac{3}{8} = \frac{9}{24}$ h) $\frac{2}{7} = \frac{6}{21}$
- i) $\frac{1}{2} = \frac{15}{30}$ k) $\frac{3}{5} = \frac{18}{30}$ l) $\frac{12}{100} = \frac{3}{25}$ m) $\frac{5}{60} = \frac{1}{12}$
- n) $\frac{3}{4} = \frac{45}{60}$ o) $\frac{1}{3} = \frac{20}{60}$ p) $\frac{15}{24} = \frac{5}{8}$ q) $\frac{7}{10} = \frac{70}{100}$
- r) $\frac{3}{5} = \frac{15}{25}$ s) $\frac{2}{3} = \frac{12}{18}$

3 a) $\frac{1}{3} = \frac{8}{24}$

b) $\frac{8}{20} = \frac{4}{10}$

c) $\frac{1}{4} = \frac{5}{20}$

d) $\frac{8}{12} = \frac{2}{3}$

e) $\frac{3}{4} = \frac{6}{8}$

f) $\frac{2}{6} = \frac{4}{12}$

Brüche vergleichen

Zu Seite 43

1 a) $\frac{3}{8} > \frac{3}{16}$

b) $\frac{3}{4} > \frac{5}{9}$

c) $\frac{10}{25} < \frac{8}{20}$

d) $\frac{5}{8} < \frac{10}{12}$

e) $\frac{5}{16} < \frac{1}{3}$

f) $\frac{6}{9} = \frac{2}{3}$

2 a) $\frac{3}{100} < \frac{1}{20} < \frac{1}{10} < \frac{20}{100} < \frac{1}{4}$

b) $\frac{7}{100} < \frac{15}{100} < \frac{1}{5} < \frac{3}{10}$

3 a) $\frac{2}{3} = \frac{10}{15} < \frac{4}{5} = \frac{12}{15}$

b) $\frac{3}{4} = \frac{21}{28} > \frac{5}{7} = \frac{20}{28}$

c) $\frac{2}{3} = \frac{14}{21} > \frac{4}{7} = \frac{12}{21}$

d) $\frac{5}{6} = \frac{25}{30} > \frac{4}{5} = \frac{24}{30}$

e) $\frac{2}{5} = \frac{16}{40} > \frac{3}{8} = \frac{15}{40}$

f) $\frac{2}{9} = \frac{4}{18} > \frac{1}{6} = \frac{3}{18}$

g) $\frac{1}{7} = \frac{10}{70} < \frac{3}{10} = \frac{21}{70}$

h) $\frac{4}{24} > \frac{1}{8} = \frac{3}{24}$

i) $\frac{4}{5} = \frac{8}{10} > \frac{7}{10}$

4 a) $\frac{1}{3} = \frac{5}{15} < \frac{2}{5} = \frac{6}{15}$

b) $\frac{1}{4} = \frac{5}{20} > \frac{1}{5} = \frac{4}{20}$

c) $\frac{1}{6} = \frac{3}{18} < \frac{2}{9} = \frac{4}{18}$

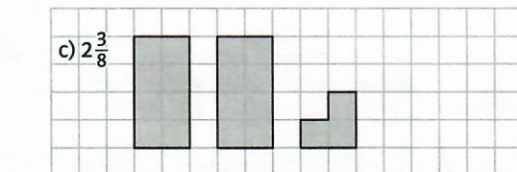
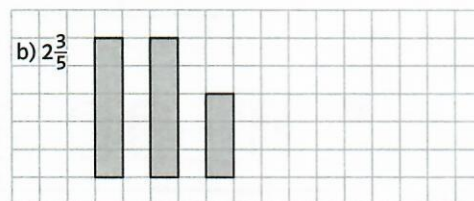
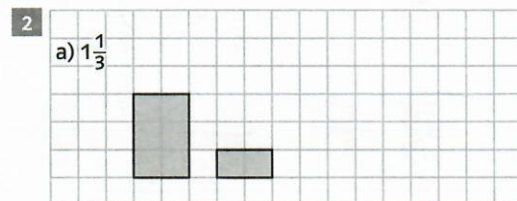
Gemischte Zahlen

Zu Seite 44

1 a) $1\frac{5}{8}$

b) $2\frac{5}{12}$

c) $1\frac{5}{6}$



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

b) $4\frac{3}{4}$

c) 3

d) 5

e) $6\frac{2}{7}$

f) $2\frac{5}{7}$

g) 4

h) 28

i) 6

k) $33\frac{1}{3}$

l) $5\frac{1}{9}$

m) $4\frac{5}{8}$

n) 8

o) $1\frac{14}{15}$

p) $3\frac{3}{20}$

4 a) $\frac{7}{3}$

b) $\frac{15}{4}$

c) $\frac{19}{5}$

d) $\frac{53}{12}$

e) $\frac{25}{7}$

f) $\frac{31}{7}$

g) $\frac{38}{11}$

h) $\frac{49}{9}$

i) $\frac{69}{11}$

k) $\frac{70}{3}$

l) $\frac{53}{3}$

m) $\frac{62}{5}$

n) $\frac{79}{6}$

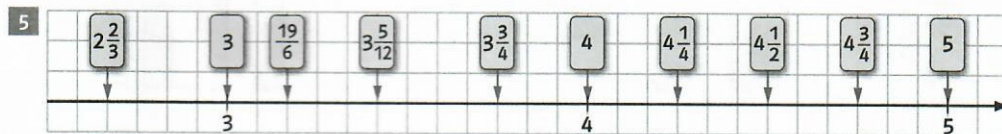
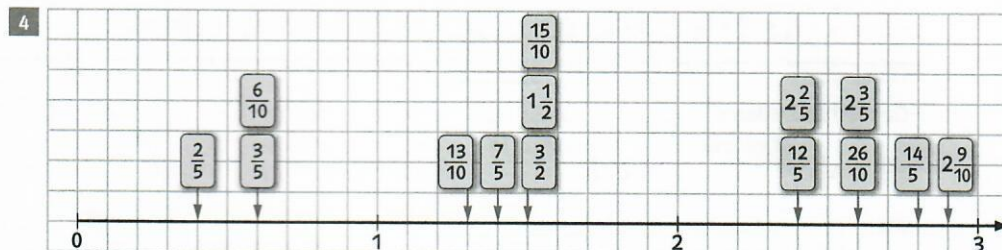
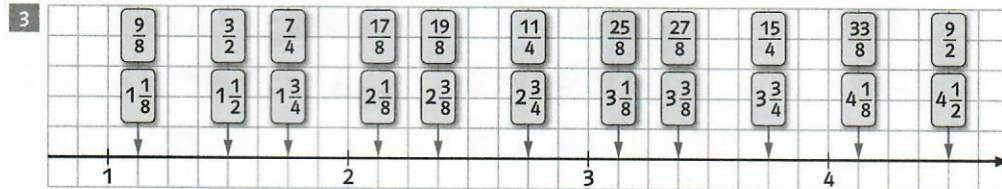
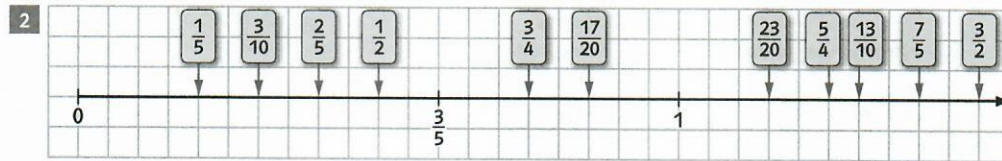
o) $\frac{127}{12}$

p) $\frac{411}{20}$

Brüche am Zahlenstrahl

Zu Seite 45

1 $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, \frac{7}{8}, \frac{9}{8}, \frac{11}{8}, \frac{3}{2}, \frac{7}{4}$



Gleichnamige Brüche addieren und subtrahieren

Zu Seite 46

- 1 a) $\frac{6}{9} + \frac{3}{9} = 1$ b) $\frac{7}{12} + \frac{5}{12} = 1$ c) $\frac{4}{18} + \frac{13}{18} = \frac{17}{18}$ d) $\frac{6}{6} - \frac{2}{6} = \frac{4}{6}$ e) $\frac{18}{18} - \frac{4}{18} = \frac{14}{18}$
- 2 a) $\frac{3}{7}$ b) $\frac{5}{7}$ c) $\frac{5}{9}$ d) $\frac{8}{9}$ e) $\frac{10}{11}$
- $\frac{2}{7}$ $\frac{1}{7}$ $\frac{8}{9}$ $\frac{16}{27}$ $\frac{2}{11}$
- 3 a) $\frac{5}{6}$ b) $\frac{5}{9}$ c) $\frac{2}{3}$ d) 1
- 1 $\frac{22}{35}$ $\frac{4}{45}$ $\frac{2}{11}$
- 4 a) $2\frac{4}{11}$ b) $2\frac{3}{10}$ c) $2\frac{1}{12}$ d) $2\frac{9}{10}$ e) $1\frac{29}{30}$
- $1\frac{2}{5}$ $1\frac{3}{8}$ $3\frac{1}{20}$ $2\frac{1}{8}$ $7\frac{1}{7}$
- 5 a) $1\frac{1}{3} + \frac{1}{3} = 1\frac{2}{3}$ b) $3\frac{3}{8} + \frac{3}{8} = 3\frac{6}{8} = 3\frac{3}{4}$

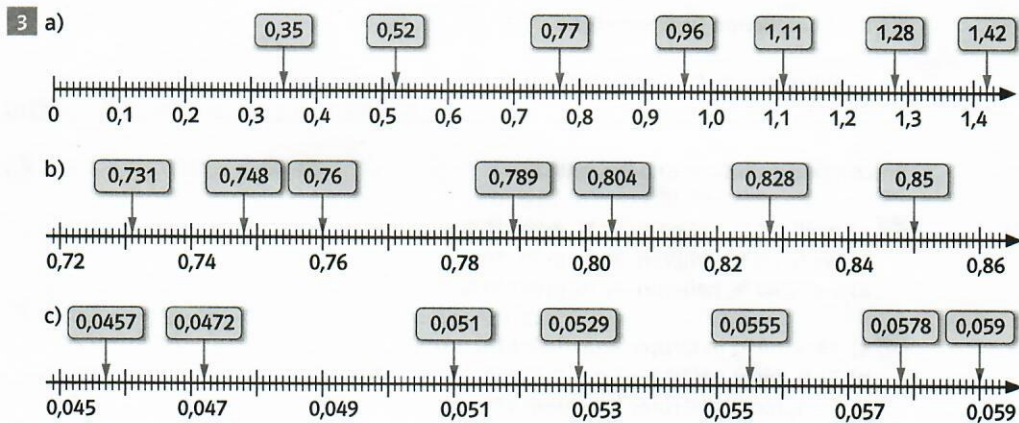
- 6 a) $9\frac{1}{4}$ b) $7\frac{1}{4}$ c) 9
 $4\frac{3}{8}$ $10\frac{3}{10}$ $8\frac{4}{15}$
 7 $4\frac{1}{6}$ $6\frac{7}{9}$
- 7 a) $5\frac{3}{5}$ b) $6\frac{1}{3}$ c) $7\frac{1}{9}$
 $8\frac{1}{9}$ $7\frac{3}{10}$ $5\frac{7}{10}$
 $2\frac{1}{10}$ $4\frac{1}{2}$ $6\frac{2}{3}$

Dezimalbrüche schreiben und anordnen

1

H	Z	E	z	h	t
		0	8	7	
		0	5	9	3
		0	8	4	2
		0	0	1	4
		0	9	6	
		0	7	1	2
		2	0	7	
	5	8	4		
		2	7		
		4	6	5	

- 2 a) 0,09; 0,29; 0,51; 0,83; 1,13; 1,39
 b) 3,23; 3,39; 3,61; 3,85; 4,06; 4,27; 4,46



- 4 kleinsten Dezimalbruch: 0,117 1,014 0,556 4,007
 größten Dezimalbruch: 0,771 1,404 0,665 4,707