

Lb 5.8 Nr. 1

a) (1) $\frac{2}{3}$ (2) $\frac{7}{8}$ (3) $\frac{10}{12}$ (4) 1 (5) $\frac{3}{4}$

b) (1) $\frac{17}{4} = \underline{\underline{4 \frac{1}{4}}}$ (2) $\frac{10}{3} = \underline{\underline{3 \frac{1}{3}}}$

(3) $\frac{28}{5} = \underline{\underline{5 \frac{3}{5}}}$ (4) $\frac{27}{10} = \underline{\underline{2 \frac{7}{10}}}$

(5) $\frac{37}{8} = \underline{\underline{4 \frac{5}{8}}}$

c) (1) $4 \frac{1}{2} = \underline{\underline{\frac{9}{2}}}$ (2) $1 \frac{5}{8} = \underline{\underline{\frac{13}{8}}}$

(3) $4 \frac{4}{5} = \underline{\underline{\frac{24}{5}}}$ (4) $1 \frac{9}{10} = \underline{\underline{\frac{19}{10}}}$

(5) $4 \frac{5}{6} = \underline{\underline{\frac{29}{6}}}$

d) (1) $\frac{3}{10} \text{ m} = 100 \text{ cm} : 10 \cdot 3 = \underline{\underline{30 \text{ cm}}}$ $1 \text{ m} = 100 \text{ cm}$

(2) $\frac{4}{5} \text{ l} = 1000 \text{ ml} : 5 \cdot 4 = \underline{\underline{800 \text{ ml}}}$ $1 \text{ l} = 1000 \text{ ml}$

(3) $1 \frac{1}{4} \text{ kg} = 1 \text{ kg} + \frac{1}{4} \text{ kg}$ $1 \text{ kg} = 1000 \text{ g}$
 $= 1000 \text{ g} + 250 \text{ g} = \underline{\underline{1250 \text{ g}}}$

$$(4) \quad \frac{2}{3} \text{ h} = 60 \text{ min} : 3 \cdot 2 = \underline{\underline{40 \text{ min}}} \quad 1 \text{ h} = 60 \text{ min}$$

$$(5) \quad \frac{3}{4} \text{ ha} = 100 \text{ a} : 4 \cdot 3 = \underline{\underline{75 \text{ a}}} \quad 1 \text{ ha} = 100 \text{ a}$$

$$e) \quad (1) \quad \frac{1}{2} = \frac{1 \cdot 3}{2 \cdot 3} = \underline{\underline{\frac{3}{6}}} \quad \frac{1}{2} = \frac{1 \cdot 5}{2 \cdot 5} = \underline{\underline{\frac{5}{10}}}$$

$$(2) \quad \frac{3}{5} = \frac{3 \cdot 3}{5 \cdot 3} = \underline{\underline{\frac{9}{15}}} \quad \frac{3}{5} = \frac{3 \cdot 5}{5 \cdot 5} = \underline{\underline{\frac{15}{25}}}$$

$$(3) \quad \frac{5}{6} = \frac{5 \cdot 3}{6 \cdot 3} = \underline{\underline{\frac{15}{18}}} \quad \frac{5}{6} = \frac{5 \cdot 5}{6 \cdot 5} = \underline{\underline{\frac{25}{30}}}$$

$$(4) \quad \frac{7}{8} = \frac{7 \cdot 3}{8 \cdot 3} = \underline{\underline{\frac{21}{24}}} \quad \frac{7}{8} = \frac{7 \cdot 5}{8 \cdot 5} = \underline{\underline{\frac{35}{40}}}$$

$$(5) \quad \frac{5}{9} = \frac{5 \cdot 3}{9 \cdot 3} = \underline{\underline{\frac{15}{27}}} \quad \frac{5}{9} = \frac{5 \cdot 5}{9 \cdot 5} = \underline{\underline{\frac{25}{45}}}$$

$$f) \quad (1) \quad \frac{6}{9} \stackrel{:3}{=} \underline{\underline{\frac{2}{3}}} \quad \frac{10}{25} \stackrel{:5}{=} \underline{\underline{\frac{2}{5}}}$$

$$(2) \quad \frac{12}{20} \stackrel{:4}{=} \underline{\underline{\frac{3}{5}}} \quad \frac{8}{16} \stackrel{:8}{=} \underline{\underline{\frac{1}{2}}}$$

$$(3) \quad \frac{9}{24} \stackrel{:3}{=} \underline{\underline{\frac{3}{8}}} \quad \frac{20}{50} \stackrel{:10}{=} \underline{\underline{\frac{2}{5}}}$$

$$(4) \quad \frac{18}{24} \stackrel{:6}{=} \frac{3}{4}$$

$$\frac{12}{30} \stackrel{:6}{=} \frac{2}{5}$$

$$(5) \quad \frac{24}{56} \stackrel{:8}{=} \frac{3}{7}$$

$$\frac{27}{36} \stackrel{:9}{=} \frac{3}{4}$$

$$g) \quad (1) \quad \frac{1}{2} < \frac{3}{5} < \frac{5}{8} < \frac{7}{10} < \frac{3}{4}$$

$$(2) \quad \frac{7}{6} = 1\frac{1}{6} \quad \frac{3}{2} = 1\frac{1}{2}$$

$$1\frac{1}{6} < 1\frac{2}{9} < 1\frac{5}{18} < 1\frac{1}{3} < 1\frac{1}{2}$$

Lb S. 9 Nr. 1

$$(1) \quad \frac{7}{12}$$

$$(2) \quad 1\frac{5}{12}$$

$$(3) \quad 1\frac{11}{12}$$

Lb S. 9 Nr. 2

$$(1) \quad \frac{5}{8}$$

$$(2) \quad \frac{5}{9}$$

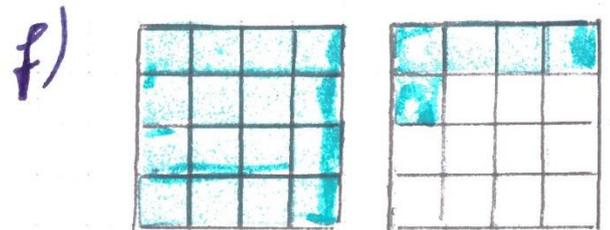
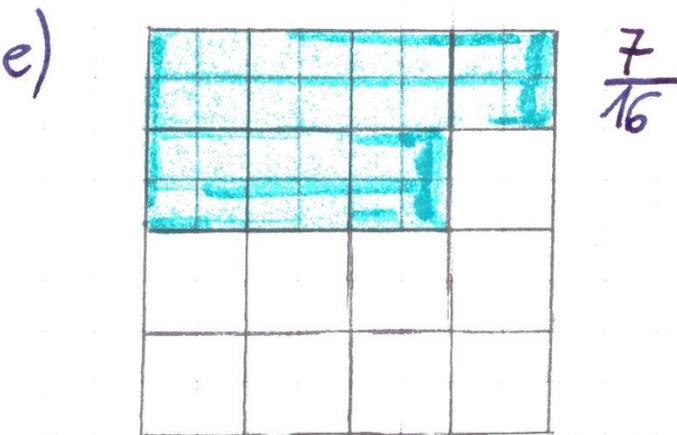
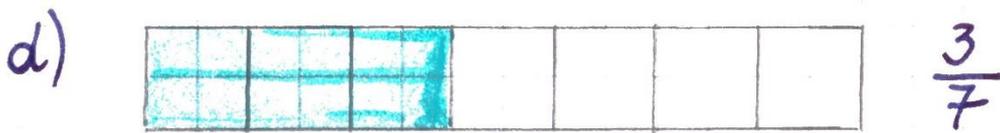
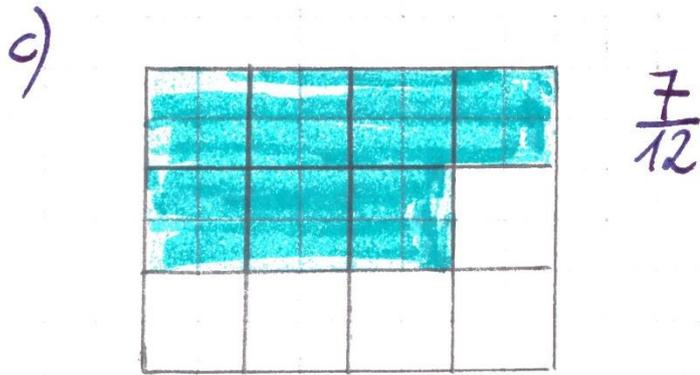
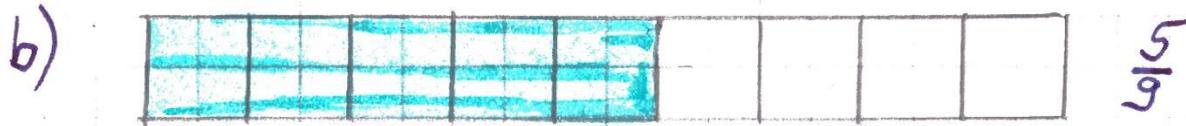
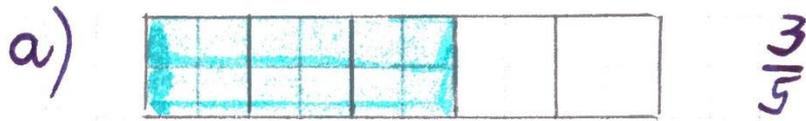
$$(3) \quad \frac{1}{3} = \frac{18}{54}$$

$$(4) \quad \frac{30}{64}$$

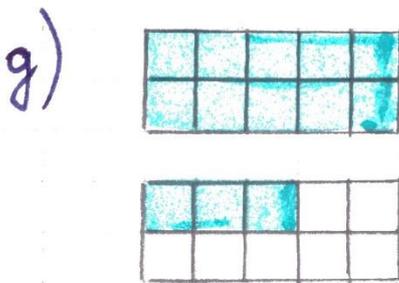
Lb S. 10 Nr. 3

Das ist falsch. Es sind nicht 6 gleich große Teile.

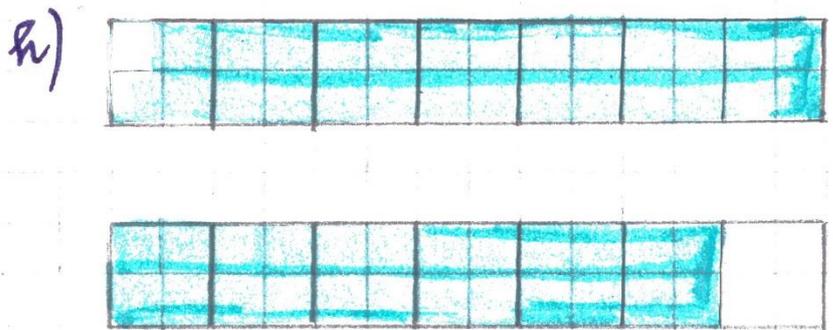
Lb S. 10 Nr. 4



$$\frac{13}{8} = 1 \frac{5}{8}$$

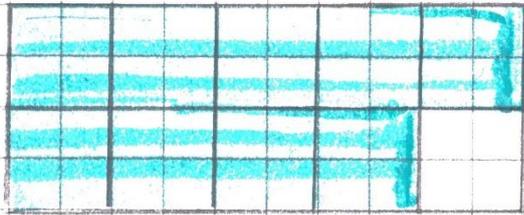
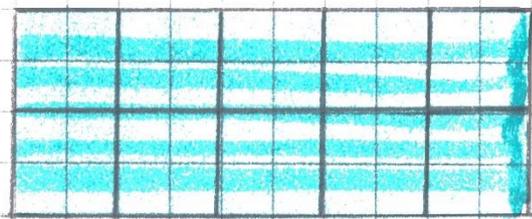
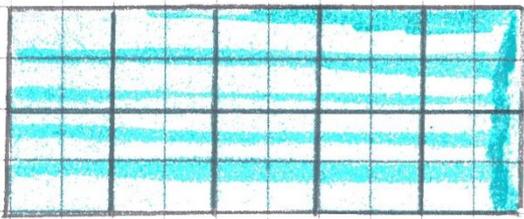


$$\frac{13}{10} = 1 \frac{3}{10}$$



$$1 \frac{6}{7}$$

i)



$$2 \frac{9}{10}$$

j)



$$3 \frac{1}{10}$$

L6 S. 10 Nr. 5

a)



$$\frac{9}{11}$$

b)



$$\frac{7}{15}$$

c)



$$\frac{3}{10}$$

d)



$$\frac{9}{10}$$

e)

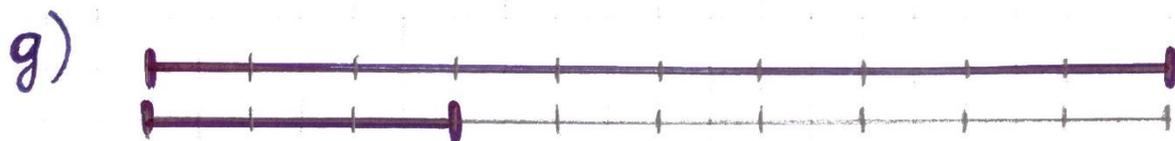


$$\frac{11}{7} = 1 \frac{4}{7}$$

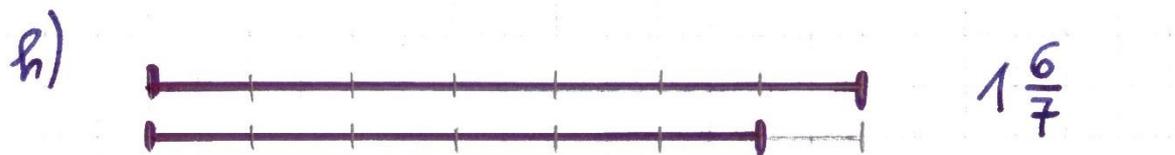
f)



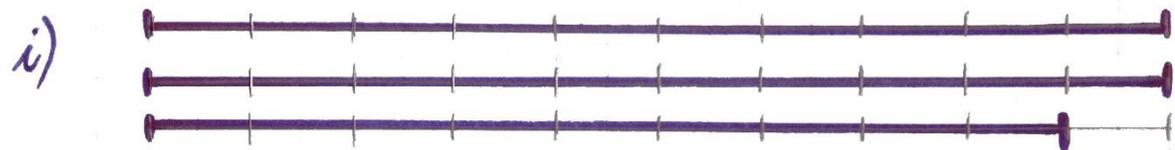
$$\frac{13}{8} = 1 \frac{5}{8}$$



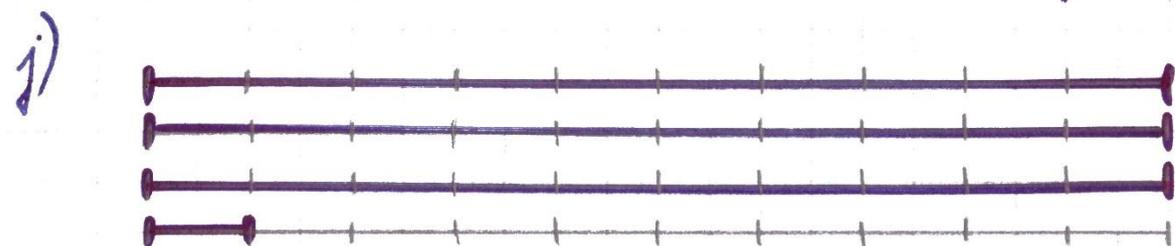
$$\frac{13}{10} = 1 \frac{3}{10}$$



$$1 \frac{6}{7}$$



$$2 \frac{9}{10}$$



$$3 \frac{1}{10}$$

Lb 5. 10 Nr. 10

$$\frac{2}{3} = \frac{2 \cdot 10}{3 \cdot 10} = \frac{20}{30}$$

$$\frac{1}{6} = \frac{1 \cdot 5}{6 \cdot 5} = \frac{5}{30}$$

$$\frac{3}{2} = \frac{3 \cdot 15}{2 \cdot 15} = \frac{45}{30}$$

$$\frac{8}{5} = \frac{8 \cdot 6}{5 \cdot 6} = \frac{48}{30}$$

$$\frac{4}{15} = \frac{4 \cdot 2}{15 \cdot 2} = \frac{8}{30}$$

$$\frac{4}{1} = \frac{4 \cdot 30}{1 \cdot 30} = \frac{120}{30}$$

$$\frac{3}{10} = \frac{3 \cdot 3}{10 \cdot 3} = \frac{9}{30}$$

L6 5.10 Nr. 11

$$a) \quad \frac{2}{3} = \frac{2 \cdot 2}{3 \cdot 2} = \frac{4}{6} \quad \frac{2 \cdot 3}{3 \cdot 3} = \frac{6}{9}$$

$$\frac{2 \cdot 5}{3 \cdot 5} = \frac{10}{15} \quad \frac{2 \cdot 10}{3 \cdot 10} = \frac{20}{30} \quad \frac{2 \cdot 11}{3 \cdot 11} = \frac{22}{33}$$

$$\frac{2 \cdot 12}{3 \cdot 12} = \frac{24}{36} \quad \frac{2 \cdot 24}{3 \cdot 24} = \frac{48}{72} \quad \frac{2 \cdot 25}{3 \cdot 25} = \frac{50}{75}$$

$$b) \quad \frac{1}{8} = \frac{1 \cdot 2}{8 \cdot 2} = \frac{2}{16} \quad \frac{1 \cdot 3}{8 \cdot 3} = \frac{3}{24}$$

$$\frac{1 \cdot 5}{8 \cdot 5} = \frac{5}{40} \quad \frac{1 \cdot 10}{8 \cdot 10} = \frac{10}{80} \quad \frac{1 \cdot 11}{8 \cdot 11} = \frac{11}{88}$$

$$\frac{1 \cdot 12}{8 \cdot 12} = \frac{12}{96} \quad \frac{1 \cdot 24}{8 \cdot 24} = \frac{24}{192} \quad \frac{1 \cdot 25}{8 \cdot 25} = \frac{25}{200}$$

$$c) \quad \frac{3}{5} = \frac{3 \cdot 2}{5 \cdot 2} = \frac{6}{10} \quad \frac{3 \cdot 3}{5 \cdot 3} = \frac{9}{15}$$

$$\frac{3 \cdot 5}{5 \cdot 5} = \frac{15}{25} \quad \frac{3 \cdot 10}{5 \cdot 10} = \frac{30}{50} \quad \frac{3 \cdot 11}{5 \cdot 11} = \frac{33}{55}$$

$$\frac{3 \cdot 12}{5 \cdot 12} = \frac{36}{60} \quad \frac{3 \cdot 24}{5 \cdot 24} = \frac{72}{120} \quad \frac{3 \cdot 25}{5 \cdot 25} = \frac{75}{125}$$

$$d) \quad \frac{4}{7} = \frac{4 \cdot 2}{7 \cdot 2} = \frac{8}{14} \quad \frac{4 \cdot 3}{7 \cdot 3} = \frac{12}{21}$$

$$\frac{4 \cdot 5}{7 \cdot 5} = \frac{20}{35} \quad \frac{4 \cdot 10}{7 \cdot 10} = \frac{40}{70} \quad \frac{4 \cdot 11}{7 \cdot 11} = \frac{44}{77}$$

$$\frac{4 \cdot 12}{7 \cdot 12} = \frac{48}{84} \quad \frac{4 \cdot 24}{7 \cdot 24} = \frac{96}{168} \quad \frac{4 \cdot 25}{7 \cdot 25} = \frac{100}{175}$$

$$e) \quad \frac{5}{12} = \frac{5 \cdot 2}{12 \cdot 2} = \frac{10}{24} \quad \frac{5 \cdot 3}{12 \cdot 3} = \frac{15}{36}$$

$$\frac{5 \cdot 5}{12 \cdot 5} = \frac{25}{60} \quad \frac{5 \cdot 10}{12 \cdot 10} = \frac{50}{120} \quad \frac{5 \cdot 11}{12 \cdot 11} = \frac{55}{132}$$

$$\frac{5 \cdot 12}{12 \cdot 12} = \frac{60}{144} \quad \frac{5 \cdot 24}{12 \cdot 24} = \frac{120}{288} \quad \frac{5 \cdot 25}{12 \cdot 25} = \frac{125}{300}$$

$$f) \quad \frac{11}{1} = \frac{11 \cdot 2}{1 \cdot 2} = \frac{22}{2} \quad \frac{11 \cdot 3}{1 \cdot 3} = \frac{33}{3}$$

$$\frac{11 \cdot 5}{1 \cdot 5} = \frac{55}{5} \quad \frac{11 \cdot 10}{1 \cdot 10} = \frac{110}{10} \quad \frac{11 \cdot 11}{1 \cdot 11} = \frac{121}{11}$$

$$\frac{11 \cdot 12}{1 \cdot 12} = \frac{132}{12} \quad \frac{11 \cdot 24}{1 \cdot 24} = \frac{264}{24} \quad \frac{11 \cdot 25}{1 \cdot 25} = \frac{275}{25}$$

$$g) \quad \frac{8}{15} = \frac{8 \cdot 2}{15 \cdot 2} = \frac{16}{30} \qquad \frac{8 \cdot 3}{15 \cdot 3} = \frac{24}{45}$$

$$\frac{8 \cdot 5}{15 \cdot 5} = \frac{40}{75} \qquad \frac{8 \cdot 10}{15 \cdot 10} = \frac{80}{150} \qquad \frac{8 \cdot 11}{15 \cdot 11} = \frac{88}{165}$$

$$\frac{8 \cdot 12}{15 \cdot 12} = \frac{96}{180} \qquad \frac{8 \cdot 24}{12 \cdot 24} = \frac{192}{360} \qquad \frac{8 \cdot 25}{12 \cdot 25} = \frac{200}{375}$$

$$h) \quad \frac{7}{12} = \frac{7 \cdot 2}{12 \cdot 2} = \frac{14}{24} \qquad \frac{7 \cdot 3}{12 \cdot 3} = \frac{21}{36}$$

$$\frac{7 \cdot 5}{12 \cdot 5} = \frac{35}{60} \qquad \frac{7 \cdot 10}{12 \cdot 10} = \frac{70}{120} \qquad \frac{7 \cdot 11}{12 \cdot 11} = \frac{77}{132}$$

$$\frac{7 \cdot 12}{12 \cdot 12} = \frac{84}{144} \qquad \frac{7 \cdot 24}{12 \cdot 24} = \frac{168}{288} \qquad \frac{7 \cdot 25}{12 \cdot 25} = \frac{175}{300}$$

$$i) \quad \frac{18}{25} = \frac{18 \cdot 2}{25 \cdot 2} = \frac{36}{50} \qquad \frac{18 \cdot 3}{25 \cdot 3} = \frac{54}{75}$$

$$\frac{18 \cdot 5}{25 \cdot 5} = \frac{90}{125} \qquad \frac{18 \cdot 10}{25 \cdot 10} = \frac{180}{250} \qquad \frac{18 \cdot 11}{25 \cdot 11} = \frac{198}{265}$$

$$\frac{18 \cdot 12}{25 \cdot 12} = \frac{216}{300} \qquad \frac{18 \cdot 24}{25 \cdot 24} = \frac{432}{600} \qquad \frac{18 \cdot 25}{25 \cdot 25} = \frac{450}{625}$$

$$j) \quad \frac{24}{13} = \frac{24 \cdot 2}{13 \cdot 2} = \frac{48}{26} \qquad \frac{24 \cdot 3}{13 \cdot 3} = \frac{72}{39}$$

$$\frac{24 \cdot 5}{13 \cdot 5} = \frac{120}{65} \qquad \frac{24 \cdot 10}{13 \cdot 10} = \frac{240}{130} \qquad \frac{24 \cdot 11}{13 \cdot 11} = \frac{264}{143}$$

$$\frac{24 \cdot 12}{13 \cdot 12} = \frac{288}{156} \qquad \frac{24 \cdot 24}{13 \cdot 24} = \frac{576}{312} \qquad \frac{24 \cdot 25}{13 \cdot 25} = \frac{600}{325}$$

Lb 5. 11 Nr. 14

$$a) \quad \frac{5}{6} = \frac{5 \cdot 4}{6 \cdot 4} = \frac{20}{24} \qquad \frac{3}{8} = \frac{3 \cdot 3}{8 \cdot 3} = \frac{9}{24}$$

$$b) \quad \frac{3}{2} = \frac{3 \cdot 15}{2 \cdot 15} = \frac{45}{30} \qquad \frac{2}{3} = \frac{2 \cdot 10}{3 \cdot 10} = \frac{20}{30}$$

$$\frac{4}{5} = \frac{4 \cdot 6}{5 \cdot 6} = \frac{24}{30}$$

$$c) \quad \frac{15}{14} = \frac{15 \cdot 15}{14 \cdot 15} = \frac{225}{210} \qquad \frac{10}{21} = \frac{10 \cdot 10}{21 \cdot 10} = \frac{100}{210}$$

$$\frac{3}{35} = \frac{3 \cdot 6}{35 \cdot 6} = \frac{18}{210} \qquad \frac{9}{70} = \frac{9 \cdot 3}{70 \cdot 3} = \frac{27}{210}$$

Lb S. 11 Nr. 15

a) $\frac{12}{30} = \frac{12:2}{30:2} = \frac{6}{15}$ $\frac{12}{30} = \frac{12:3}{30:3} = \frac{4}{10}$
 $\frac{12}{30} = \frac{12:6}{30:6} = \frac{2}{5}$

b) $\frac{18}{24} = \frac{18:2}{24:2} = \frac{9}{12}$ $\frac{18}{24} = \frac{18:3}{24:3} = \frac{6}{8}$
 $\frac{18}{24} = \frac{18:6}{24:6} = \frac{3}{4}$

c) $\frac{24}{6} = \frac{24:2}{6:2} = \frac{12}{3}$ $\frac{24}{6} = \frac{24:3}{6:3} = \frac{8}{2}$
 $\frac{24}{6} = \frac{24:6}{6:6} = \frac{4}{1}$

d) $\frac{48}{60} = \frac{48:2}{60:2} = \frac{24}{30}$ $\frac{48}{60} = \frac{48:3}{60:3} = \frac{16}{20}$
 $\frac{48}{60} = \frac{48:6}{60:6} = \frac{8}{10}$

e) $\frac{6}{54} = \frac{6:2}{54:2} = \frac{3}{27}$ $\frac{6}{54} = \frac{6:3}{54:3} = \frac{2}{17}$
 $\frac{6}{54} = \frac{6:6}{54:6} = \frac{1}{9}$

Lb S. 11 Nr. 17

$$a) \quad \frac{12}{16} \stackrel{:4}{=} \frac{3}{4}$$

$$\frac{84}{21} \stackrel{:21}{=} \frac{4}{1}$$

$$\frac{12}{18} \stackrel{:6}{=} \frac{2}{3}$$

$$b) \quad \frac{40}{50} \stackrel{:10}{=} \frac{4}{5}$$

$$\frac{28}{24} \stackrel{:4}{=} \frac{7}{6}$$

$$\frac{24}{36} \stackrel{:12}{=} \frac{2}{3}$$

$$c) \quad \frac{36}{90} \stackrel{:18}{=} \frac{2}{5}$$

$$\frac{48}{80} \stackrel{:16}{=} \frac{3}{5}$$

$$\frac{75}{60} \stackrel{:15}{=} \frac{5}{4}$$

$$d) \quad \frac{42}{28} \stackrel{:14}{=} \frac{3}{2}$$

$$\frac{75}{45} \stackrel{:15}{=} \frac{5}{3}$$

$$\frac{32}{48} \stackrel{:16}{=} \frac{2}{3}$$

$$e) \quad \frac{63}{36} \stackrel{:9}{=} \frac{7}{4}$$

$$\frac{45}{54} \stackrel{:9}{=} \frac{5}{6}$$

$$\frac{84}{48} \stackrel{:12}{=} \frac{7}{4}$$

$$f) \quad \frac{24}{60} \stackrel{:12}{=} \frac{2}{5}$$

$$\frac{96}{120} \stackrel{:24}{=} \frac{4}{5}$$

$$\frac{112}{84} \stackrel{:28}{=} \frac{4}{3}$$

$$g) \quad \frac{42}{30} \stackrel{:6}{=} \frac{7}{5}$$

$$\frac{90}{135} \stackrel{:45}{=} \frac{2}{3}$$

$$\frac{36}{40} \stackrel{:4}{=} \frac{9}{10}$$

$$h) \quad \frac{60}{144} \stackrel{:12}{=} \frac{5}{12}$$

$$\frac{48}{128} \stackrel{:16}{=} \frac{3}{8}$$

$$\frac{42}{126} \stackrel{:42}{=} \frac{1}{3}$$

Lb 5. 11 Nr. 21

$$a) \quad \frac{20}{8} = 2 \frac{4}{8} = 2 \frac{1}{2} \quad \frac{20}{9} = 2 \frac{1}{9}$$

$$\frac{16}{9} = 1 \frac{7}{9} \quad \frac{66}{12} = 5 \frac{6}{12} = 5 \frac{1}{2} \quad \frac{17}{6} = 2 \frac{5}{6}$$

$$\underline{\underline{1 \frac{7}{6} < 2 \frac{1}{9} < 2 \frac{1}{2} < 2 \frac{5}{6} < 5 \frac{1}{2}}}$$

$$b) \quad \frac{13}{3} = 4 \frac{1}{3} \quad \frac{30}{9} = 3 \frac{3}{9} = 3 \frac{1}{3} \quad \frac{20}{7} = 2 \frac{6}{7}$$

$$\frac{80}{18} = 4 \frac{8}{18} = 4 \frac{4}{9} \quad \frac{91}{15} = 6 \frac{1}{15}$$

$$\underline{\underline{2 \frac{6}{7} < 3 \frac{1}{3} < 4 \frac{1}{3} < 4 \frac{4}{9} < 6 \frac{1}{15}}}$$

$$c) \quad \frac{63}{12} = 5 \frac{3}{12} = 5 \frac{1}{4} \quad \frac{70}{18} = 3 \frac{16}{18} = 3 \frac{8}{9}$$

$$\frac{99}{50} = 4 \frac{19}{50} \quad \frac{159}{25} = 6 \frac{9}{25} \quad \frac{301}{50} = 6 \frac{1}{50}$$

$$\underline{\underline{3 \frac{8}{9} < 4 \frac{19}{50} < 5 \frac{1}{4} < 6 \frac{1}{50} < 6 \frac{9}{25}}}$$

Lb 5.11 Nr. 22

$$A: \frac{1}{20}$$

$$B: \frac{4}{20} = \frac{1}{5}$$

$$C: \frac{9}{20}$$

$$D: \frac{10}{20} = \frac{1}{2}$$

$$E: \frac{15}{20} = \frac{3}{4}$$

$$F: \frac{18}{20} = \frac{9}{10}$$

$$G: 1 \frac{1}{20}$$

$$H: 1 \frac{5}{20} = 1 \frac{1}{4}$$

Lb 5.11 Nr. 23

$$4 \frac{1}{2} = \frac{9}{2}$$

$$8 \frac{1}{4} = \frac{33}{4}$$

$$5 \frac{2}{3} = \frac{17}{3}$$

$$7 \frac{9}{10} = \frac{79}{10}$$

$$5 \frac{4}{10} = \frac{54}{10}$$

$$7 \frac{11}{20} = \frac{153}{20}$$

$$6 \frac{24}{100} = \frac{624}{100}$$

$$5 \frac{8}{100} = \frac{508}{100}$$

$$3 \frac{125}{1000} = \frac{3125}{1000}$$

$$4 \frac{83}{1000} = \frac{4083}{1000}$$

Lb 5.11 Nr. 24

$$\frac{7}{2} \text{ kg} = 3 \frac{1}{2} \text{ kg}$$

$$\frac{13}{8} \text{ kg} = 1 \frac{5}{8} \text{ kg}$$

$$\frac{43}{10} \text{ t} = 4 \frac{3}{10} \text{ t}$$

$$\frac{219}{100} \text{ t} = 2 \frac{19}{100} \text{ t}$$

$$\frac{11}{8} \text{ l} = 1 \frac{3}{8} \text{ l}$$

$$\frac{4}{3} \text{ h} = 1 \frac{1}{3} \text{ h}$$

$$\frac{15}{2} \text{ km} = 7 \frac{1}{2} \text{ km}$$

$$\frac{13}{4} \text{ l} = 3 \frac{1}{4} \text{ l}$$

$$\frac{53}{10} \text{ m}^2 = 5 \frac{3}{10}$$

Lb S. 11 Nr. 25

$$a) 3 \frac{1}{2} = \frac{7}{2}$$

$$b) 4 \frac{1}{4} = \frac{17}{4}$$

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

$$d) 7 \frac{4}{7} = \frac{53}{7} \checkmark$$

$$e) 1 \frac{2}{9} = \frac{11}{9}$$

Lb S. 27 Nr. 3

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

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

$$c) \frac{2}{5} + \frac{7}{15} = \frac{6}{15} + \frac{7}{15} = \underline{\underline{\frac{13}{15}}}$$

$$d) \frac{5}{6} - \frac{1}{3} = \frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \underline{\underline{\frac{1}{2}}}$$

$$e) \frac{3}{4} + \frac{5}{8} = \frac{6}{8} + \frac{5}{8} = \underline{\underline{\frac{11}{8}}}$$

$$f) \frac{3}{10} - \frac{13}{100} = \frac{30}{100} - \frac{13}{100} = \underline{\underline{\frac{17}{100}}}$$

Lb S. 27 Nr. 5

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

$$b) \frac{2}{11} + \frac{2}{11} = \underline{\underline{\frac{4}{11}}}$$

$$c) \frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \underline{\underline{\frac{1}{2}}}$$

$$d) \frac{9}{10} - \frac{3}{10} = \frac{6}{10} = \underline{\underline{\frac{3}{5}}}$$

$$e) \frac{3}{12} + \frac{7}{12} = \frac{10}{12} = \underline{\underline{\frac{5}{6}}}$$

$$f) \frac{7}{20} - \frac{5}{20} = \frac{2}{20} = \underline{\underline{\frac{1}{10}}}$$

Lb S. 27 Nr. 6

$$a) \frac{1}{8} + \frac{1}{4} = \frac{1}{8} + \frac{2}{8} = \underline{\underline{\frac{3}{8}}}$$

$$b) \frac{5}{6} - \frac{1}{3} = \frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \underline{\underline{\frac{1}{2}}}$$

$$c) \frac{1}{5} + \frac{3}{15} = \frac{1}{5} + \frac{1}{5} = \underline{\underline{\frac{2}{5}}}$$

$$d) \frac{13}{16} - \frac{3}{4} = \frac{13}{16} - \frac{12}{16} = \underline{\underline{\frac{1}{16}}}$$

$$e) \frac{3}{5} + \frac{3}{25} = \frac{15}{25} + \frac{3}{25} = \underline{\underline{\frac{18}{25}}}$$

$$f) \frac{71}{125} + \frac{432}{1000} = \frac{568}{1000} + \frac{432}{1000} = \frac{1000}{1000} = \underline{\underline{1}}$$

Lb S. 27 Nr. 7

$$a) \frac{1}{3} + \frac{3}{4} = \frac{4}{12} + \frac{9}{12} = \underline{\underline{\frac{13}{12}}}$$

$$\frac{1}{2} + \frac{2}{3} = \frac{3}{6} + \frac{4}{6} = \underline{\underline{\frac{7}{6}}}$$

$$\frac{4}{5} + \frac{3}{8} = \frac{32}{40} + \frac{15}{40} = \underline{\underline{\frac{47}{40}}}$$

$$\frac{5}{7} + \frac{1}{6} = \frac{30}{42} + \frac{7}{42} = \underline{\underline{\frac{37}{42}}}$$

$$b) \frac{1}{2} - \frac{1}{5} = \frac{5}{10} - \frac{2}{10} = \underline{\underline{\frac{3}{10}}}$$

$$\frac{5}{6} - \frac{3}{4} = \frac{10}{12} - \frac{9}{12} = \underline{\underline{\frac{1}{12}}}$$

$$\frac{7}{8} - \frac{1}{2} = \frac{7}{8} - \frac{4}{8} = \underline{\underline{\frac{3}{8}}}$$

$$\frac{7}{10} - \frac{2}{5} = \frac{7}{10} - \frac{4}{10} = \underline{\underline{\frac{3}{10}}}$$

c) $\frac{1}{4} + \frac{3}{5} = \frac{5}{20} + \frac{12}{20} = \underline{\underline{\frac{17}{20}}}$

$$\frac{3}{10} - \frac{2}{15} = \frac{9}{30} - \frac{4}{30} = \frac{5}{30} = \underline{\underline{\frac{1}{6}}}$$

$$\frac{6}{11} - \frac{1}{7} = \frac{42}{77} - \frac{11}{77} = \underline{\underline{\frac{31}{77}}}$$

$$\frac{2}{3} + \frac{1}{4} = \frac{8}{12} + \frac{3}{12} = \underline{\underline{\frac{11}{12}}}$$

d) $\frac{7}{10} + \frac{7}{12} = \frac{42}{60} + \frac{35}{60} = \underline{\underline{\frac{77}{60}}}$

$$\frac{4}{5} - \frac{4}{20} = \frac{16}{20} - \frac{4}{20} = \frac{12}{20} = \underline{\underline{\frac{3}{5}}}$$

$$\frac{6}{15} + \frac{6}{21} = \frac{126}{315} + \frac{90}{315} = \frac{216}{315} = \underline{\underline{\frac{24}{35}}}$$

$$\frac{9}{15} - \frac{9}{18} = \frac{54}{90} - \frac{45}{90} = \frac{9}{90} = \underline{\underline{\frac{1}{10}}}$$

e) $\frac{3}{4} - \frac{3}{10} = \frac{15}{20} - \frac{6}{20} = \underline{\underline{\frac{9}{20}}}$

$$\frac{11}{125} + \frac{11}{100} = \frac{44}{500} + \frac{55}{500} = \underline{\underline{\frac{99}{500}}}$$

$$\frac{15}{10} - \frac{15}{100} = \frac{150}{100} - \frac{15}{100} = \underline{\underline{\frac{135}{100}}}$$

$$\frac{21}{25} + \frac{51}{75} = \frac{63}{75} + \frac{51}{75} = \underline{\underline{\frac{114}{75}}}$$

Lb 5. 28 Nr. 9

$$a) \quad \frac{5}{4} - \frac{1}{2} = \frac{5}{4} - \frac{2}{4} = \underline{\underline{\frac{3}{4}}}$$

$$b) \quad \frac{17}{30} - \frac{4}{15} = \frac{17}{30} - \frac{8}{30} = \frac{9}{30} = \underline{\underline{\frac{3}{10}}}$$

$$c) \quad \frac{15}{16} - \frac{4}{8} = \frac{15}{16} - \frac{8}{16} = \underline{\underline{\frac{7}{16}}}$$

$$e) \quad \frac{47}{55} - \frac{8}{11} = \frac{47}{55} - \frac{40}{55} = \underline{\underline{\frac{7}{55}}}$$

$$d) \quad \frac{59}{72} - \frac{4}{9} = \frac{59}{72} - \frac{32}{72} = \frac{27}{72} = \underline{\underline{\frac{3}{8}}}$$

$$f) \quad \frac{71}{84} - \frac{3}{7} = \frac{71}{84} - \frac{36}{84} = \frac{35}{84} = \underline{\underline{\frac{5}{12}}}$$

Lb 5. 28 Nr. 10

$$a) \quad \frac{1}{6} + \frac{1}{4} + \frac{5}{12} = \frac{2}{12} + \frac{3}{12} + \frac{5}{12} = \frac{10}{12} = \underline{\underline{\frac{5}{6}}}$$

$$\frac{5}{18} + \frac{2}{9} + \frac{1}{3} = \frac{5}{18} + \frac{4}{18} + \frac{6}{18} = \frac{15}{18} = \underline{\underline{\frac{5}{6}}}$$

$$b) \frac{3}{20} + \frac{3}{10} + \frac{1}{5} = \frac{3}{20} + \frac{6}{20} + \frac{6}{20} = \frac{15}{20} = \underline{\underline{\frac{3}{4}}}$$

$$\frac{37}{50} + \frac{4}{5} + \frac{3}{10} = \frac{37}{50} + \frac{40}{50} + \frac{15}{50} = \frac{92}{50} = \underline{\underline{\frac{46}{25}}}$$

$$c) \frac{13}{20} + \frac{1}{10} - \frac{1}{2} = \frac{13}{20} + \frac{2}{20} - \frac{10}{20} = \frac{5}{20} = \underline{\underline{\frac{1}{4}}}$$

$$\frac{14}{15} + \frac{1}{3} - \frac{2}{5} = \frac{14}{15} + \frac{5}{15} - \frac{6}{15} = \underline{\underline{\frac{14}{15}}}$$

$$d) \frac{13}{15} - \frac{1}{90} - \frac{2}{9} = \frac{78}{90} - \frac{1}{90} - \frac{20}{90} = \frac{57}{90} = \underline{\underline{\frac{19}{30}}}$$

$$\frac{44}{75} - \frac{4}{25} - \frac{4}{15} = \frac{44}{75} - \frac{12}{75} - \frac{20}{75} = \frac{12}{75} = \underline{\underline{\frac{4}{25}}}$$

$$e) \frac{671}{1000} + \frac{19}{200} - \frac{3}{125} = \frac{671}{1000} + \frac{95}{1000} - \frac{24}{1000} = \frac{742}{1000} = \underline{\underline{\frac{371}{500}}}$$

$$\frac{7}{12} + \frac{5}{18} - \frac{301}{360} = \frac{210}{360} + \frac{100}{360} - \frac{301}{360} = \frac{9}{360} = \underline{\underline{\frac{1}{40}}}$$

Lb 5. 63 Nr. 1

$$1. a) \frac{5}{12} + \frac{2}{3} = \frac{5}{12} + \frac{8}{12} = \underline{\underline{\frac{13}{12}}}$$

$$\frac{11}{15} - \frac{3}{5} = \frac{11}{15} - \frac{9}{15} = \underline{\underline{\frac{2}{15}}}$$

$$b) \quad \frac{2}{3} + \frac{3}{4} = \frac{8}{12} + \frac{9}{12} = \underline{\underline{\frac{17}{12}}}$$

$$\frac{5}{6} - \frac{3}{4} = \frac{10}{12} - \frac{9}{12} = \underline{\underline{\frac{1}{12}}}$$

$$c) \quad \frac{5}{7} + \frac{5}{8} = \frac{40}{56} + \frac{35}{56} = \underline{\underline{\frac{75}{56}}}$$

$$\frac{5}{7} - \frac{5}{8} = \frac{40}{56} - \frac{35}{56} = \underline{\underline{\frac{5}{56}}}$$

$$d) \quad 4\frac{1}{3} + \frac{2}{3} = \frac{13}{3} + \frac{2}{3} = \frac{15}{3} = \underline{\underline{5}}$$

$$9 - 1\frac{1}{6} = \frac{9}{1} - \frac{1}{6} = \frac{54}{6} - \frac{1}{6} = \underline{\underline{\frac{53}{6}}}$$

$$e) \quad 1\frac{1}{2} + \frac{7}{8} = \frac{3}{2} + \frac{7}{8} = \frac{12}{8} + \frac{7}{8} = \underline{\underline{\frac{19}{8}}}$$

$$4\frac{3}{10} - \frac{1}{2} = \frac{43}{10} - \frac{5}{10} = \underline{\underline{\frac{38}{10}}}$$

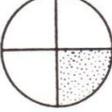
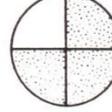
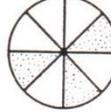
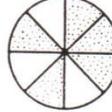
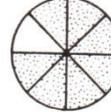
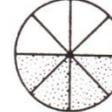
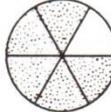
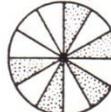
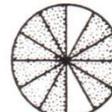
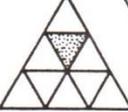
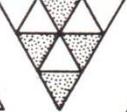
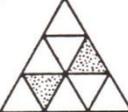
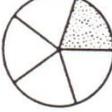
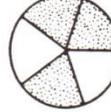
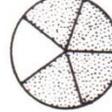
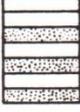
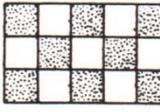
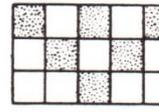
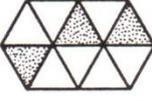
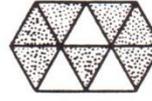
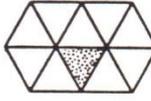
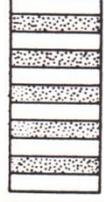
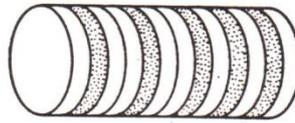
$$f) \quad 6\frac{4}{15} + 3\frac{5}{6} = \frac{94}{15} + \frac{23}{6} = \frac{188}{30} + \frac{115}{30} = \underline{\underline{\frac{303}{30}}}$$

$$= \underline{\underline{\frac{101}{10}}}$$

$$6\frac{4}{15} - 3\frac{5}{6} = \frac{188}{30} - \frac{115}{30} = \underline{\underline{\frac{73}{30}}}$$

Bruchzahlen – Bruchteile von Gesamtflächen

Welche Bruchzahlen sind dargestellt? Suche die dargestellten Zahlen im Bild!

							
$\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{5}{8}$	$\frac{7}{8}$	$\frac{4}{8}$	
							
$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{6}$	$\frac{5}{6}$	$\frac{1}{12}$	$\frac{5}{12}$	$\frac{10}{12}$	
							
$\frac{1}{9}$	$\frac{4}{9}$	$\frac{2}{9}$	$\frac{8}{9}$	$\frac{7}{9}$	$\frac{1}{5}$	$\frac{3}{5}$	$\frac{4}{5}$
							
$\frac{2}{7}$	$\frac{3}{7}$	$\frac{4}{7}$	$\frac{6}{7}$	$\frac{8}{15}$	$\frac{6}{15}$	$\frac{5}{16}$	
							
$\frac{3}{10}$	$\frac{7}{10}$	$\frac{1}{10}$	$\frac{5}{11}$	$\frac{5}{13}$			

Wozu sind denn Brüche gut?

Jetzt geht's um Bruchzahlen!

Bruchzahlen – gemischte Zahlen

Verwandle in gemischte Zahlen und kürze, wenn möglich!

$$\frac{5}{3} = 1 \frac{2}{3}$$

$$\frac{19}{6} = 3 \frac{1}{6}$$

$$\frac{17}{2} = 8 \frac{1}{2}$$

$$\frac{65}{3} = 21 \frac{2}{3}$$

$$\frac{131}{20} = 6 \frac{11}{20}$$

$$\frac{7}{4} = 1 \frac{3}{4}$$

$$\frac{25}{4} = 6 \frac{1}{4}$$

$$\frac{55}{8} = 6 \frac{7}{8}$$

$$\frac{127}{12} = 10 \frac{7}{12}$$

$$\frac{217}{50} = 4 \frac{17}{50}$$

$$\frac{10}{7} = 1 \frac{3}{7}$$

$$\frac{48}{7} = 6 \frac{6}{7}$$

$$\frac{9}{4} = 2 \frac{1}{4}$$

$$\frac{135}{100} = 1 \frac{7}{20}$$

$$\frac{681}{10} = 68 \frac{1}{10}$$

$$\frac{9}{2} = 4 \frac{1}{2}$$

$$\frac{39}{5} = 7 \frac{4}{5}$$

$$\frac{87}{10} = 8 \frac{7}{10}$$

$$\frac{321}{4} = 80 \frac{1}{4}$$

$$\frac{104}{7} = 14 \frac{6}{7}$$

$$\frac{13}{10} = 1 \frac{3}{10}$$

$$\frac{68}{9} = 7 \frac{5}{9}$$

$$\frac{90}{7} = 12 \frac{6}{7}$$

$$\frac{187}{6} = 31 \frac{1}{6}$$

$$\frac{69}{4} = 17 \frac{1}{4}$$

Verwandle in Brüchen!

$$5 \frac{1}{2} = \frac{11}{2}$$

$$7 \frac{3}{8} = \frac{59}{8}$$

$$7 \frac{2}{3} = \frac{23}{3}$$

$$4 \frac{4}{15} = \frac{64}{15}$$

$$8 \frac{1}{4} = \frac{33}{4}$$

$$8 \frac{4}{7} = \frac{60}{7}$$

$$10 \frac{3}{7} = \frac{73}{7}$$

$$9 \frac{8}{11} = \frac{107}{11}$$

$$12 \frac{3}{4} = \frac{51}{4}$$

$$15 \frac{3}{5} = \frac{78}{5}$$

$$12 \frac{1}{5} = \frac{61}{5}$$

$$20 \frac{1}{7} = \frac{141}{7}$$

Berechne und kürze, wenn möglich!

$$2 \frac{1}{4} \text{ kg} + 3 \frac{1}{4} \text{ kg} = 5 \frac{2}{4} \text{ kg}$$

$$4 \frac{1}{10} \text{ kg} + 2 \frac{3}{10} \text{ kg} = 6 \frac{2}{10} \text{ kg}$$

$$7 \frac{3}{5} \text{ m} - 5 \frac{1}{5} \text{ m} = 2 \frac{2}{5} \text{ m}$$

$$12 \frac{1}{10} \text{ m} - 3 \frac{1}{10} \text{ m} = 9 \text{ m}$$

$$5 \frac{3}{4} \text{ h} + 6 \frac{1}{4} \text{ h} = 12 \text{ h}$$

$$9 \frac{1}{4} \text{ h} - 3 \frac{3}{4} \text{ h} = 5 \frac{2}{4} \text{ h}$$



Ergänze die Tabellen!

+	$\frac{1}{4}$	$\frac{5}{6}$	$\frac{2}{5}$	$\frac{3}{8}$
$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{3}$	$\frac{9}{10}$	$\frac{7}{8}$
$\frac{2}{3}$	$\frac{11}{12}$	$1\frac{1}{2}$	$1\frac{1}{15}$	$1\frac{1}{24}$
$\frac{3}{4}$	1	$1\frac{7}{12}$	$1\frac{3}{20}$	$1\frac{1}{8}$
$\frac{7}{12}$	$\frac{5}{6}$	$1\frac{5}{12}$	$\frac{59}{60}$	$\frac{23}{24}$

-	$\frac{2}{7}$	$\frac{3}{8}$	$\frac{4}{9}$	$\frac{1}{6}$
$\frac{6}{7}$	$\frac{4}{7}$	$\frac{27}{56}$	$\frac{26}{63}$	$\frac{29}{42}$
$\frac{4}{5}$	$\frac{18}{35}$	$\frac{17}{40}$	$\frac{16}{45}$	$\frac{19}{30}$
$\frac{3}{4}$	$\frac{13}{28}$	$\frac{3}{8}$	$\frac{11}{36}$	$\frac{7}{12}$
$\frac{7}{8}$	$\frac{33}{56}$	$\frac{1}{2}$	$\frac{31}{72}$	$\frac{17}{24}$

Ergänze die „Zauberquadrate“: in jeder Zeile, jeder Spalte und jeder Diagonale soll die Summe 1 betragen!

$\frac{5}{12}$	$\frac{1}{6}$	$\frac{5}{12}$
$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$
$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}$

$\frac{2}{9}$	$\frac{7}{18}$	$\frac{7}{18}$
$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{6}$
$\frac{5}{18}$	$\frac{5}{18}$	$\frac{4}{9}$

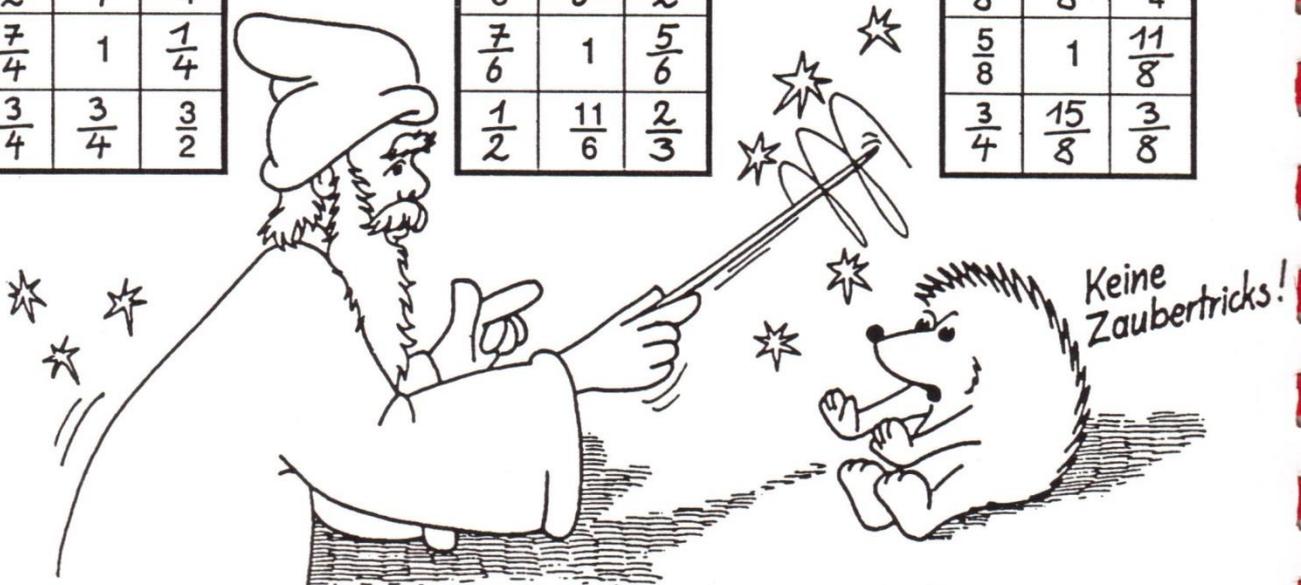
$\frac{7}{15}$	$\frac{2}{5}$	$\frac{2}{15}$
0	$\frac{1}{3}$	$\frac{2}{3}$
$\frac{8}{15}$	$\frac{4}{15}$	$\frac{1}{5}$

Bei diesen „Zauberquadraten“ beträgt die Summe in jeder Zeile, jeder Spalte und jeder Diagonale 3!

$\frac{1}{2}$	$\frac{5}{4}$	$\frac{5}{4}$
$\frac{7}{4}$	1	$\frac{1}{4}$
$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{2}$

$\frac{4}{3}$	$\frac{1}{6}$	$\frac{3}{2}$
$\frac{7}{6}$	1	$\frac{5}{6}$
$\frac{1}{2}$	$\frac{11}{6}$	$\frac{2}{3}$

$\frac{13}{8}$	$\frac{1}{8}$	$\frac{5}{4}$
$\frac{5}{8}$	1	$\frac{11}{8}$
$\frac{3}{4}$	$\frac{15}{8}$	$\frac{3}{8}$



Ergänze die Tabellen!

+	$\frac{1}{4}$	$\frac{5}{6}$	$\frac{2}{5}$	$\frac{3}{8}$
$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{3}$	$\frac{9}{10}$	$\frac{7}{8}$
$\frac{2}{3}$	$\frac{11}{12}$	$1\frac{1}{2}$	$1\frac{1}{15}$	$1\frac{1}{24}$
$\frac{3}{4}$	1	$1\frac{7}{12}$	$1\frac{3}{20}$	$1\frac{1}{8}$
$\frac{7}{12}$	$\frac{5}{6}$	$1\frac{5}{12}$	$\frac{59}{60}$	$\frac{23}{24}$

-	$\frac{2}{7}$	$\frac{3}{8}$	$\frac{4}{9}$	$\frac{1}{6}$
$\frac{6}{7}$	$\frac{4}{7}$	$\frac{27}{56}$	$\frac{26}{63}$	$\frac{29}{42}$
$\frac{4}{5}$	$\frac{18}{35}$	$\frac{17}{40}$	$\frac{16}{45}$	$\frac{19}{30}$
$\frac{3}{4}$	$\frac{13}{28}$	$\frac{3}{8}$	$\frac{11}{36}$	$\frac{7}{12}$
$\frac{7}{8}$	$\frac{33}{56}$	$\frac{1}{2}$	$\frac{31}{72}$	$\frac{17}{24}$