

Lösungen der Übungsaufgaben

Bruchrechnen, Dezimalbrüche, negative Zahlen

- 1) (a)  $\frac{15}{25} = \frac{3}{5}$   
(b)  $\frac{14}{20} = \frac{7}{10}$   
(c)  $\frac{6}{18} = \frac{1}{3}$   
(d)  $\frac{7}{84} = \frac{1}{12}$   
(e)  $\frac{26}{39} = \frac{2}{3}$
- 2)  $\frac{1}{8} = \frac{45}{360}; \frac{3}{4} = \frac{270}{360}; \frac{4}{5} = \frac{288}{360}; \frac{2}{9} = \frac{80}{360}$   
 $\frac{1}{8} < \frac{2}{9} < \frac{3}{4} < \frac{4}{5}$
- 3) (a)  $\frac{2}{3} + \frac{1}{3} = \frac{3}{3} = 1$   
(b)  $\frac{2}{3} + \frac{1}{6} = \frac{4}{6} + \frac{1}{6} = \frac{5}{6}$   
(c)  $\frac{2}{5} + \frac{8}{5} = \frac{10}{5} = 2$   
(d)  $\frac{3}{7} + \frac{5}{14} = \frac{6}{14} + \frac{5}{14} = \frac{11}{14}$   
(e)  $\frac{5}{42} + \frac{7}{12} = \frac{10}{84} + \frac{49}{84} = \frac{59}{84}$   
(f)  $\frac{2}{3} - \frac{1}{6} = \frac{4}{6} - \frac{1}{6} = \frac{3}{6} = \frac{1}{2}$   
(g)  $\frac{5}{7} - \frac{3}{14} = \frac{10}{14} - \frac{3}{14} = \frac{7}{14} = \frac{1}{2}$   
(h)  $\frac{8}{39} - \frac{3}{26} = \frac{16}{78} - \frac{9}{78} = \frac{7}{78}$   
(i)  $2\frac{1}{3} + 3\frac{1}{2} = 2\frac{2}{6} + 3\frac{3}{6} = 5\frac{5}{6}$

4) (a)  $\frac{2}{3} \cdot \frac{3}{8} = \frac{2 \cdot 3}{3 \cdot 8} = \frac{2}{8} = \frac{1}{4}$   
 (b)  $\frac{5}{4} \cdot \frac{1}{2} = \frac{5 \cdot 1}{4 \cdot 2} = \frac{5}{8}$   
 (c)  $3\frac{3}{4} \cdot \frac{1}{5} = \frac{15}{4} \cdot \frac{1}{5} = \frac{3}{4}$   
 (d)  $\frac{2}{3} : \frac{1}{3} = \frac{2}{3} \cdot \frac{3}{1} = 2$   
 (e)  $\frac{5}{4} : 5 = \frac{5}{4} \cdot \frac{1}{5} = \frac{1}{4}$

5) (a)  $-5 - 18 = -23$   
 (b)  $-5 + 18 = 13$   
 (c)  $22 - (-18) = 22 + 18 = 40$

6)  $8 \cdot 2 \cdot 2 = 32$  Walnüsse.

7)  $\frac{7}{11} \cdot 66 \text{ min} = \frac{7 \cdot 66}{11} \text{ min} = \frac{7 \cdot 6}{1} \text{ min} = 42 \text{ min}$

8) (a)  $\frac{5}{4} = 1,25$   
 (b)  $\frac{7}{8} = 0,875$   
 (c)  $\frac{2}{9} = 0,\bar{2}$   
 (d)  $5\frac{3}{8} = 5,375$

9)  $1 - \left(\frac{1}{2} + \frac{1}{3}\right) = 1 - \left(\frac{3}{6} + \frac{2}{6}\right) = 1 - \frac{5}{6} = \frac{1}{6}$   
 Anja erhält ein Sechstel.