

Mathe 9 E-kurs MKR Lösungen Woche 3

S. 28 ① a) $\frac{a}{b} = \frac{c}{d}$ $\frac{e}{f} = \frac{g}{h}$ $\frac{e}{f} = \frac{c}{d}$

b) $\frac{e}{b} = \frac{a}{d}$ $\frac{f}{c} = \frac{g}{h}$ $\frac{f}{c} = \frac{e}{b}$

c) $\frac{AB}{AC} = \frac{AE}{AD}$ $\frac{AB}{AC} = \frac{AE}{AD}$ $\frac{BE}{AC} = \frac{CE}{AD}$

d) $\frac{PI}{PR} = \frac{SI}{SR}$ $\frac{PI}{PR} = \frac{SI}{SR}$ $\frac{PS}{PR} = \frac{SI}{SR}$

② a) $\frac{x}{8,2} = \frac{9,6}{15,0}$ b) $\frac{x}{11,8} = \frac{9,7}{11,4}$ c) $\frac{x}{9} = \frac{5}{6}$ d) $\frac{x}{5,6} = \frac{3,5}{4,2}$

$x = \frac{9,6 \cdot 8,2}{15,0}$ $x = \frac{9,7 \cdot 11,8}{11,4}$ $x = \frac{5 \cdot 9}{6}$ $x = \frac{3,5 \cdot 5,6}{4,2}$

$x \approx 5,2 \text{ cm}$ $x \approx 10,16 \text{ cm}$ $x = 7,5 \text{ cm}$ $x \approx 4,7 \text{ cm}$

③ a) $\frac{e}{a} = \frac{d}{b}$ $\frac{c}{f} = \frac{g}{h}$ b) $\frac{e}{c} = \frac{d}{g}$ $\frac{a}{f} = \frac{b}{h}$ c) $\frac{a}{d} = \frac{f}{g}$

$e = 6,4 \text{ cm}$ $c = 7,5 \text{ cm}$ $b \approx 3,3 \text{ cm}$ $c \approx 3,3 \text{ cm}$ $a = 5,2 \text{ cm}$

d) $\frac{d}{a} = \frac{f}{b}$ $\frac{b}{c} = \frac{g}{h}$ e) $2,5 \text{ cm}$ $a = 5,2 \text{ cm}$

f) a) $\frac{e}{b} = \frac{d}{a}$ $\frac{c}{f} = \frac{g}{h}$ b) $\frac{b}{c} = \frac{a}{d}$ $\frac{f}{g} = \frac{h}{a}$

$e = 3 \text{ cm}$ $c \approx 6,7 \text{ cm}$ $b = 8 \text{ cm}$ $f = 8,8 \text{ cm}$

c) $\frac{d}{a} = \frac{f}{b}$ $\frac{b}{c} = \frac{g}{h}$ $d = 4,1 \text{ cm}$ $b = 6,3 \text{ cm}$

$\frac{AB}{BS} = \frac{AQ}{QS}$ $\rightarrow \frac{AB}{BS} = \frac{AQ}{QS}$ $\rightarrow \frac{AB}{BS} = \frac{60}{10}$

$\frac{AB}{AS} = \frac{AS}{AS}$ $\rightarrow \frac{AB}{AS} = \frac{AS}{AS}$ $\rightarrow \frac{AB}{AS} = \frac{80}{15}$

a) $\frac{b}{c} = \frac{a}{d}$ $b = \frac{945 \cdot 114}{180} = 592,5 \text{ mm}$ $b = 59,25 \text{ cm}$

b) $\frac{g}{h} = \frac{a}{b}$ $b = \frac{12 \cdot 110}{9,065} \approx 73,8 \text{ cm}$

a) $\frac{x-5}{35} = \frac{24}{35}$ $x-5 = 24+32$ $x = 20 \text{ cm}$

b) $\frac{8-x}{7-x} = \frac{15+7,5}{15}$ $8-x = 15(7-x)$ $8-x = 105 - 15x$ $0,5x = 2,5$ $x = 5 \text{ cm}$

c) $\frac{x+10,5}{x} = \frac{6,5}{4}$ $2(x+10,5) = 6,5x$ $x \approx 4,62 \text{ m}$

③ $\frac{x}{9,8} = \frac{8,8+2,2}{2,2}$ $x = \frac{(8,8+2,2) \cdot 0,8}{2,2}$ $x = 4 \text{ m}$

⑤ $\frac{d}{66} = \frac{384000}{66}$ $d \approx 3494 \text{ km}$

⑥ a) $\frac{x}{180} = \frac{4,80}{1,80}$ $x = 5,76 \text{ m}$

Wenn der Mann 1,80 m groß ist, ist der Baum 5,76 m groß.

