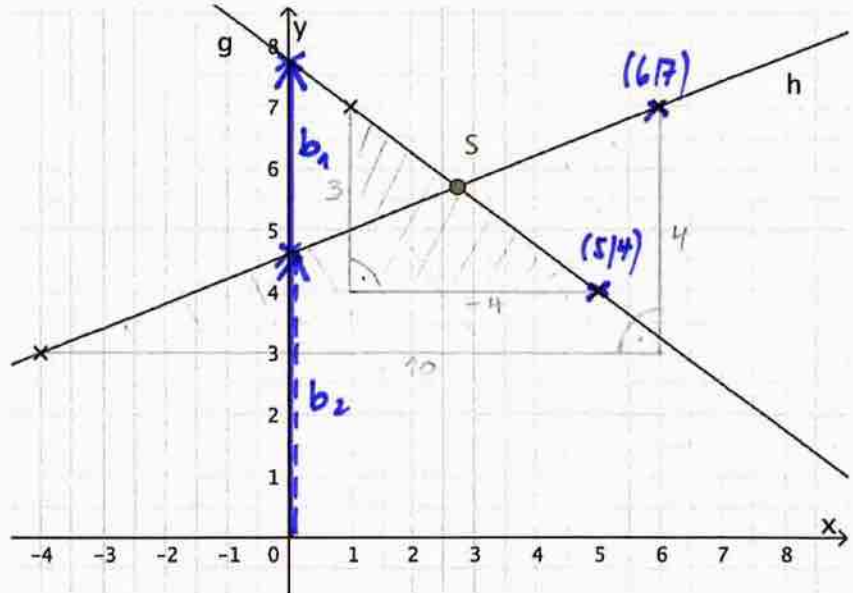


1. a.)



$$\begin{aligned}g: & y = -\frac{3}{4} \cdot x + b_1 \\ \rightarrow & 4 = -\frac{3}{4} \cdot 5 + b_1 \\ & \frac{16}{4} = -\frac{15}{4} + \frac{31}{4} \\ \Rightarrow & \underline{\underline{y = -\frac{3}{4} \cdot x + \frac{31}{4}}}\end{aligned}$$

$$\begin{aligned}h: & y = \frac{2}{5} \cdot x + b_2 \\ \rightarrow & 7 = \frac{2}{5} \cdot 6 + b_2 \\ & \frac{35}{5} = \frac{12}{5} + \frac{23}{5} \\ \Rightarrow & \underline{\underline{y = \frac{2}{5} \cdot x + \frac{23}{5}}}\end{aligned}$$

$$b.) \quad -\frac{3}{4} \cdot x + \frac{31}{4} = \frac{2}{5} \cdot x + \frac{23}{5}$$

$$-\frac{15 \cdot x}{20} + \frac{155}{20} = \frac{8 \cdot x}{20} + \frac{92}{20} \quad | \cdot 20$$

$$-15 \cdot x + 155 = 8 \cdot x + 92 \quad | +15 \cdot x$$

$$155 = 23 \cdot x + 92 \quad | -92$$

$$63 = 23 \cdot x \quad | :23$$

$$\frac{63}{23} = x$$

$$\rightarrow y = \frac{2}{5} \cdot x + \frac{23}{5}$$

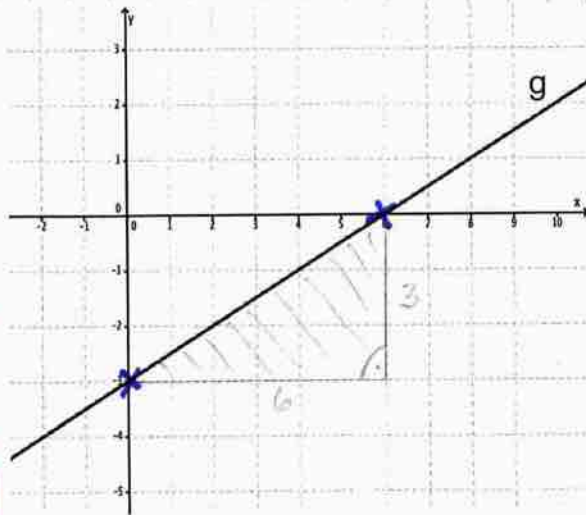
$$= \frac{2}{5} \cdot \frac{63}{23} + \frac{23}{5}$$

$$= \frac{126}{115} + \frac{529}{115}$$

$$= \frac{131 \cdot 655}{115 \cdot 23} = \frac{131}{23}$$

$$\Rightarrow \underline{\underline{S \left(\frac{63}{23} \mid \frac{131}{23} \right)}}$$

2.



$$a.) \frac{1 \cdot 3}{6} = \underline{\underline{\frac{1}{2}}}$$

b.)

x	-10	-14	-6	-6	8	22	25	56
y	-8	-10	-6	-6	1	8	9,5	25

$$c.) \underline{\underline{y = \frac{1}{2} \cdot x - 3}}$$

$$\underline{3.} \quad V = s^3 = (80 \text{ mm})^3 = (8 \text{ cm})^3 = \underline{\underline{512 \text{ cm}^3}}$$

$$\rho = \frac{m}{V} = \frac{1,28 \text{ kg}}{512 \text{ cm}^3} = \frac{1'280 \text{ g}}{512 \text{ cm}^3} = \underline{\underline{2,5 \frac{\text{g}}{\text{cm}^3}}}$$

$$\underline{4.} \quad m = 18 \text{ t} = 18'000 \text{ kg} = \underline{\underline{18'000'000 \text{ g}}}$$

$$\begin{aligned} 1,5 \text{ g} &\triangleq 1 \text{ cm}^3 \\ 18'000'000 \text{ g} &\triangleq \underline{\underline{12'000'000 \text{ cm}^3}} \end{aligned}$$

$$24 \text{ m}^2 = 2'400 \text{ dm}^2 = \underline{\underline{240'000 \text{ cm}^2}}$$

$$\Rightarrow h = \frac{V}{G} = \frac{12'000'000 \text{ cm}^3}{240'000 \text{ cm}^2} = \underline{\underline{50 \text{ cm}}}$$

5. $\frac{1}{2} \cdot 1,5 \text{ l} = 0,75 \text{ l} = 0,75 \text{ dm}^3 = \underline{750 \text{ cm}^3}$

$1 \text{ g} \hat{=} 1 \text{ cm}^3$
 $\underline{750 \text{ g}} \hat{=} \underline{750 \text{ cm}^3} \quad (\text{Wasser})$

$\rightarrow 0,8 \text{ kg} - 750 \text{ g} = 800 \text{ g} - 750 \text{ g} = \underline{50 \text{ g}}$

$0,8 \text{ g} \hat{=} 1 \text{ cm}^3$
 $50 \text{ g} \hat{=} \underline{\underline{62,5 \text{ cm}^3}} \quad (\text{Plastik})$

6. $14,4 \text{ km} \hat{=} 1 \text{ h}$
 $\underline{14'400 \text{ m} \hat{=} 3'600 \text{ s}}$

$6 \text{ min } 25 \text{ s} = \underline{385 \text{ s}}$

$\Rightarrow \begin{array}{l} 3'600 \text{ s} \hat{=} 14'400 \text{ m} \\ 385 \text{ s} \hat{=} \underline{\underline{1'540 \text{ m}}} \end{array}$
