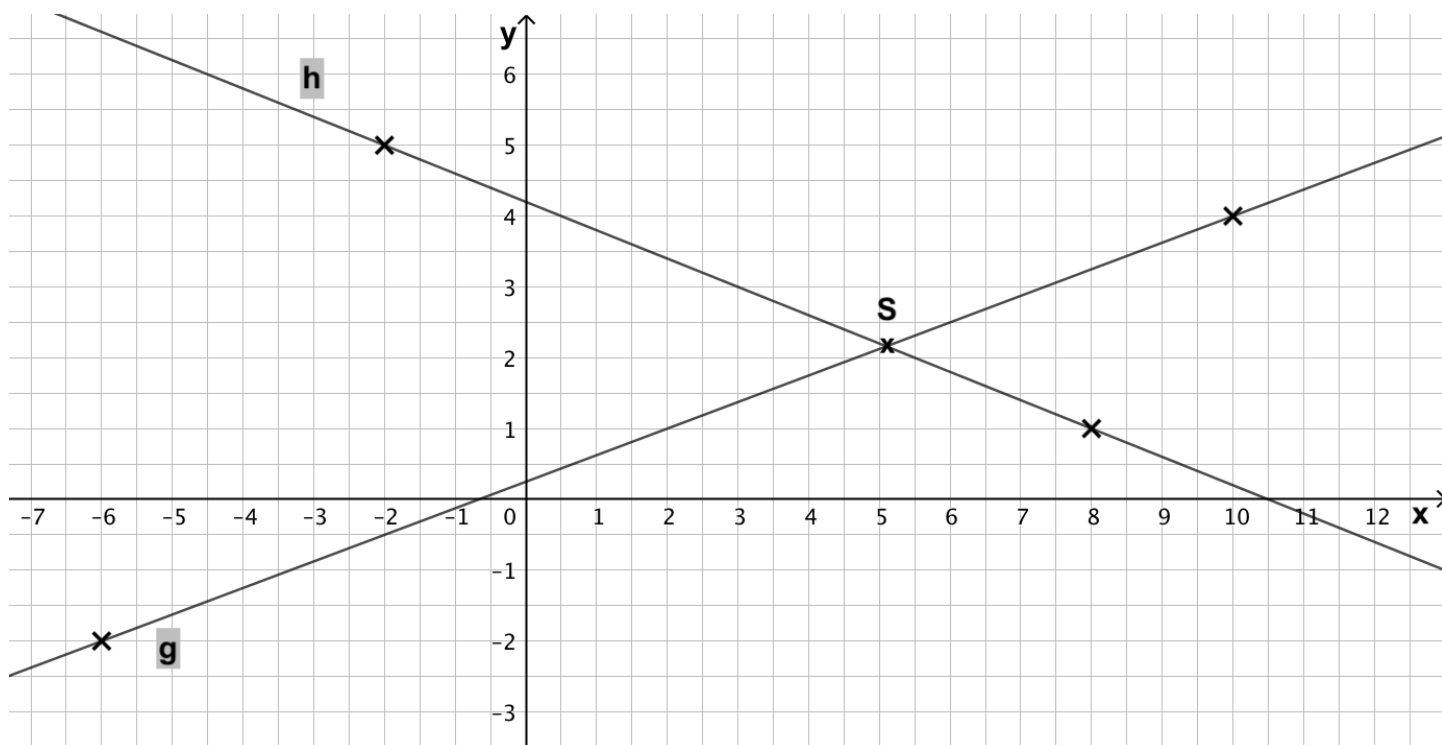


# Lösung



Gerade g :  $y = \frac{6}{16} \cdot x + b = \frac{3}{8} \cdot x + b$

Koordinaten des Punktes (10/4) einsetzen :

$$4 = \frac{3}{8} \cdot 10 + b = \frac{30}{8} + b$$
$$\frac{32}{8} = \frac{30}{8} + \frac{2}{8} \Rightarrow b = \frac{2}{8} = \frac{1}{4}$$

$$\Rightarrow y = \frac{3}{8} \cdot x + \frac{1}{4}$$

**Gerade h :**  $y = -\frac{4}{10} \cdot x + b = -\frac{2}{5} \cdot x + b$

Koordinaten des Punktes D (8/1) einsetzen :

$$1 = -\frac{2}{5} \cdot 8 + b = -\frac{16}{5} + b$$

$$\frac{5}{5} = -\frac{16}{5} + \frac{21}{5} \Rightarrow b = \frac{21}{5}$$

$$\Rightarrow y = -\frac{2}{5} \cdot x + \frac{21}{5}$$

**Schnittpunkt S :**  $y = \frac{3}{8} \cdot x + \frac{1}{4}$        $y = -\frac{2}{5} \cdot x + \frac{21}{5}$

$$\begin{array}{rcll} \frac{3}{8} \cdot x + \frac{1}{4} & = & -\frac{2}{5} \cdot x + \frac{21}{5} & \\ \frac{3x}{8} + \frac{1}{4} & = & -\frac{2x}{5} + \frac{21}{5} & | \cdot 40 \\ 15x + 10 & = & -16x + 168 & | +16x \\ 31x + 10 & = & 168 & | -10 \\ 31x & = & 158 & | :31 \\ \hline x & = & \frac{158}{31} & \end{array}$$

$$\begin{array}{rcll} \underline{y} & = & \frac{3}{8} \cdot x + \frac{1}{4} & = & \frac{3}{8} \cdot \frac{158}{31} + \frac{1}{4} \\ & = & \frac{474}{248} + \frac{1}{4} & = & \frac{237}{124} + \frac{31}{124} \\ & = & \frac{268}{124} & = & \frac{67}{31} \end{array}$$

$$\Rightarrow S \left( \frac{158}{31} / \frac{67}{31} \right)$$