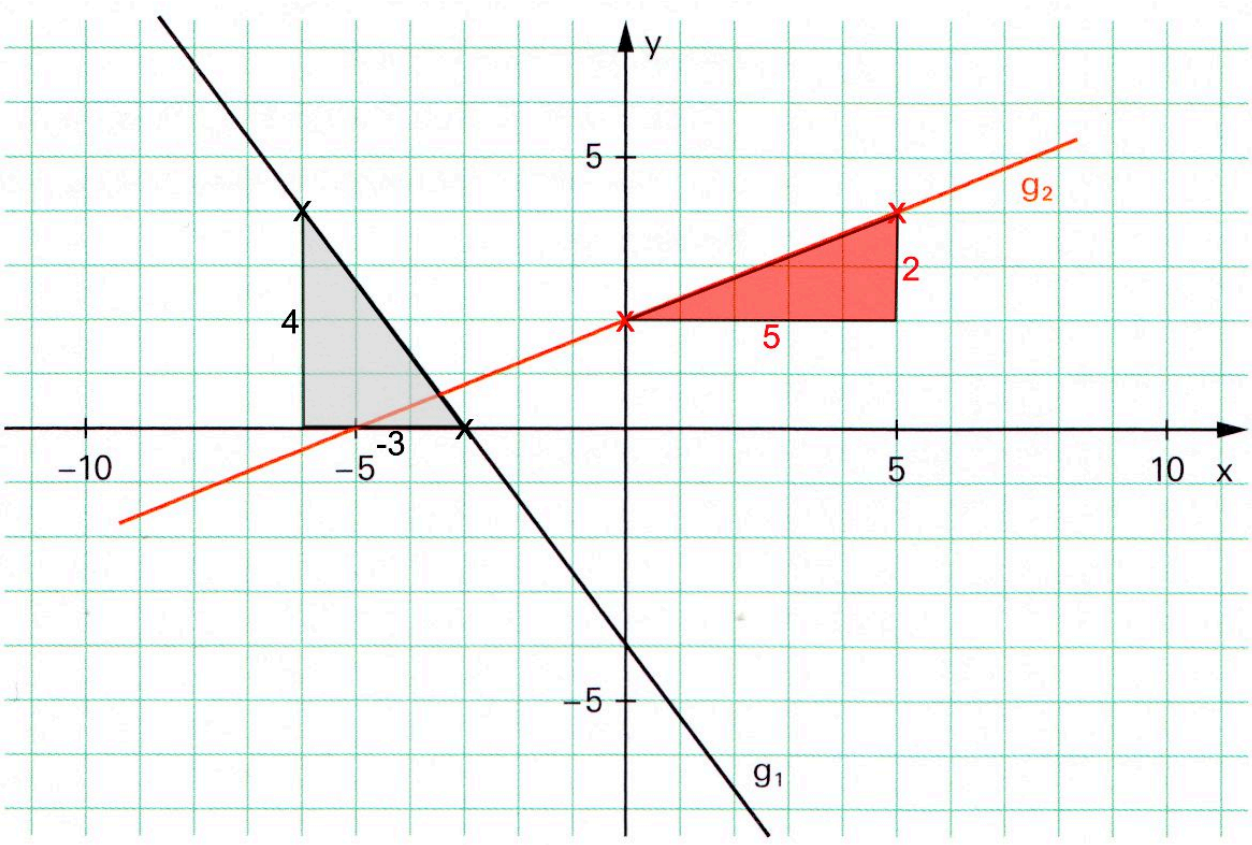
Lösung AH S.109 Nr.2



A

$g_1: \quad y = -\frac{4}{3}\cdot x - 4 \qquad g_2: \quad y = \frac{2}{5}\cdot x + 2$

B

$g_1:$

y	$=$	$-\frac{4}{3}\cdot x - 4$	$\mid \cdot 3$
$3\cdot y$	$=$	$-4\cdot x - 12$	$\mid +4\cdot x$
$4\cdot x + 3\cdot y$	$=$	-12	$\mid +12$
$4\cdot x + 3\cdot y + 12$	$=$	0	

$g_2:$

y	$=$	$\frac{2}{5}\cdot x + 2$	$\mid \cdot 5$
$5\cdot y$	$=$	$2\cdot x + 10$	$\mid -2\cdot x$
$-2\cdot x + 5\cdot y$	$=$	10	$\mid -10$
$-2\cdot x + 5\cdot y - 10$	$=$	0	

oder: $\quad 0 = 2\cdot x - 5\cdot y + 10$

D

$$-\frac{4}{3}\cdot x - 4 = \frac{2}{5}\cdot x + 2 \quad \Big| \cdot 15$$

$$-20\cdot x - 60 = 6\cdot x + 30 \quad \Big| + 20\cdot x$$

$$-60 = 26\cdot x + 30 \quad \Big| - 30$$

$$-90 = 26\cdot x \quad \Big| : 26$$

$$-\frac{90}{26} = -\frac{45}{13} = x$$

$$y = \frac{2}{5}\cdot x + 2 = \frac{2}{\cancel{5}^{1}}\cdot\left(-\frac{\cancel{45}^{9}}{13}\right) + 2$$

$$= -\frac{18}{13} + \frac{26}{13} = \frac{8}{13}$$

Schnittpunkt : $S\left(-\frac{45}{13} / \frac{8}{13}\right)$