

Teil A

1a) $2(5x-1) = -3(\frac{1}{2}-x)$

$10x-2 = -\frac{3}{2} + 3x$ ✓

$7x = \frac{1}{2}$ ✓ $x = \frac{1}{14}$ ✓ $L = \{\frac{1}{14}\}$ ✓

3

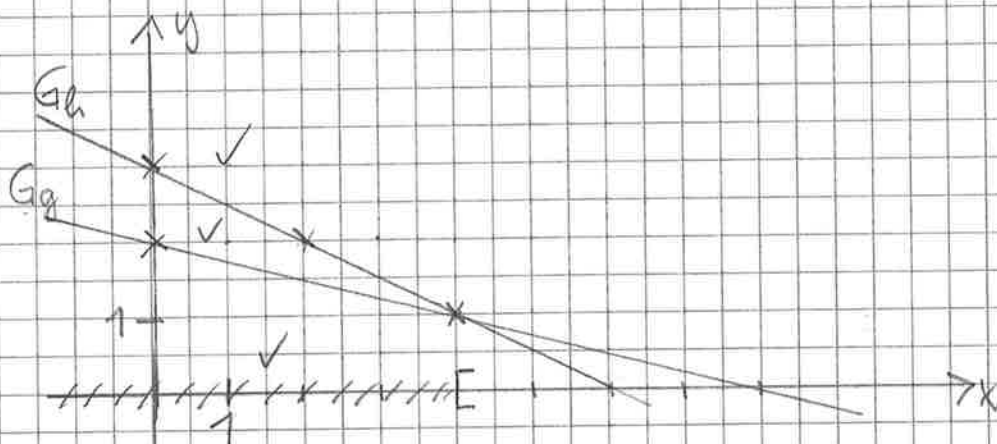
b) $(x-2)^2 - (x^2 + 0,5x) = 3(0,5x-1) + 1$

$x^2 - 4x + 4 - x^2 - 0,5x = 1,5x - 3 + 1$ ✓

$-6x = -6$ ✓ $x = 1$ ✓ $L = \{1\}$ ✓

4

2a)



3

b) $-\frac{1}{2}x + 3 > -\frac{1}{4}x + 2$ ✓

$-\frac{1}{4}x > -1$

$x < 4$ ✓ $L =]-\infty; 4[$ ✓

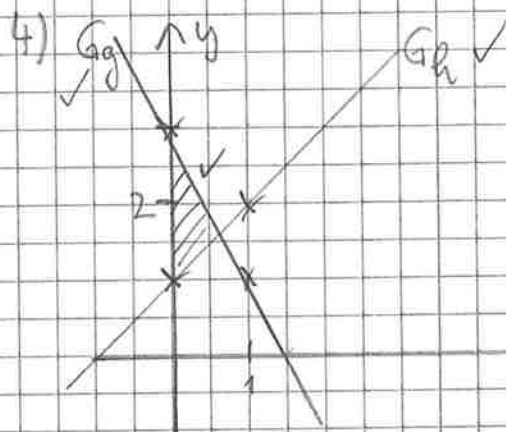
3

3a) $m = \frac{1-2}{2-0} = -\frac{1}{2}$ ✓ $y = -\frac{1}{2}x + 2$ ✓

b) $y = 4$ ✓

c) $y = x + t$ ✓ $0 = -1 + t \Rightarrow t = 1$ ✓ $y = x + 1$ ✓

5



$-2x + 3 = x + 1$ ✓
 $-3x = -2$ ✓ $x = \frac{2}{3}$ ✓

$A = \frac{1}{2} \cdot 2 \cdot \frac{2}{3} = \frac{2}{3}$ ✓

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Teil B

1.1 A (10 | 1450) B (15 | 1200)

$$m = \frac{1450 - 1200}{10 - 15} = \frac{250}{-5} = -50 \checkmark \checkmark$$

$$y = -50x + t \checkmark \quad 1450 = -50 \cdot 10 + t \Rightarrow t = 1950 \checkmark$$

$$y = -50x + 1950 \checkmark$$

1.2 $-50 \cdot 30 + 1950 = 450 \checkmark$

Nach 30 Minuten sind
450 Liter Öl im Tank. $\checkmark$

1.3 $-50x + 1950 = 0 \checkmark \quad x = \frac{-1950}{-50} = 39 \checkmark$

Nach 39 Minuten
ist der Tank leer. $\checkmark$

2. $x \leq$ Anzahl der Logenplätze

$$(x - 130) + x + (x + 96) = 740 \checkmark \checkmark$$

$$3x = 740 + 34 = 774 \checkmark$$

$$x = 258 \checkmark$$

Anzahl Logenplätze
" Rang
" Parkett

3. Figur: $\frac{1}{2} \pi \cdot 4^2 - 2 \cdot \frac{1}{2} \pi \cdot 1 + \frac{1}{2} \pi \cdot 2^2 = (8 - 1 + 2) \pi = 9\pi \checkmark \checkmark$

Kreis: $\pi \cdot 3^2 \checkmark = 9\pi \checkmark$ Flächeninhalt
stimmt überein $\checkmark$

4. $\frac{240}{320} \checkmark = \frac{a}{140} \checkmark \quad a = 105 \checkmark$

$$\frac{175}{105} = \frac{x}{240} \checkmark \checkmark \quad x = 400 \checkmark$$