

$$528 \text{ Nr. 2) } A = \{ \dots; -10; -5; 0; 5; 10; \dots \}$$

$$B = \{ -10; -9; -8; \dots; 8; 9; 10 \}$$

$$a) A \cap B = \{ \pm 10; \pm 5; 0 \} = \{ x \in [-10; 10]_{\mathbb{Z}} \mid x \bmod 5 = 0 \}$$

$$b) A \cup B = \{ \dots; -20; -15; -10; -9; -8; \dots; 8; 9; 10; 15; 20; \dots \}$$

$$= \{ x \in \mathbb{Z} \mid x \bmod 5 = 0 \vee (x > -10 \wedge x < 10) \}$$
$$-9 \leq x \leq 9$$

$$c) A \setminus B = \{ \dots; -20; -15; 15; 20; \dots \}$$

$$\{ x \in \mathbb{Z} \mid x \bmod 5 = 0 \wedge |x| \geq 15 \}$$

$\rightarrow x \geq 15 \vee x \leq -15$

$$d) B \setminus A = x \in [-9; 9]_{\mathbb{Z}} \setminus \{ \pm 5; 0 \}$$

$$S. 32 \quad 2) \quad A = \{ 8; \underline{9}; 10; 12; 14; \underline{15}; 16; 18; 20; \underline{21}; 22 \}$$

$$B = \{ 7; \underline{9}; 11; 13; \underline{15}; 17; 19; \underline{21}; 23 \}$$

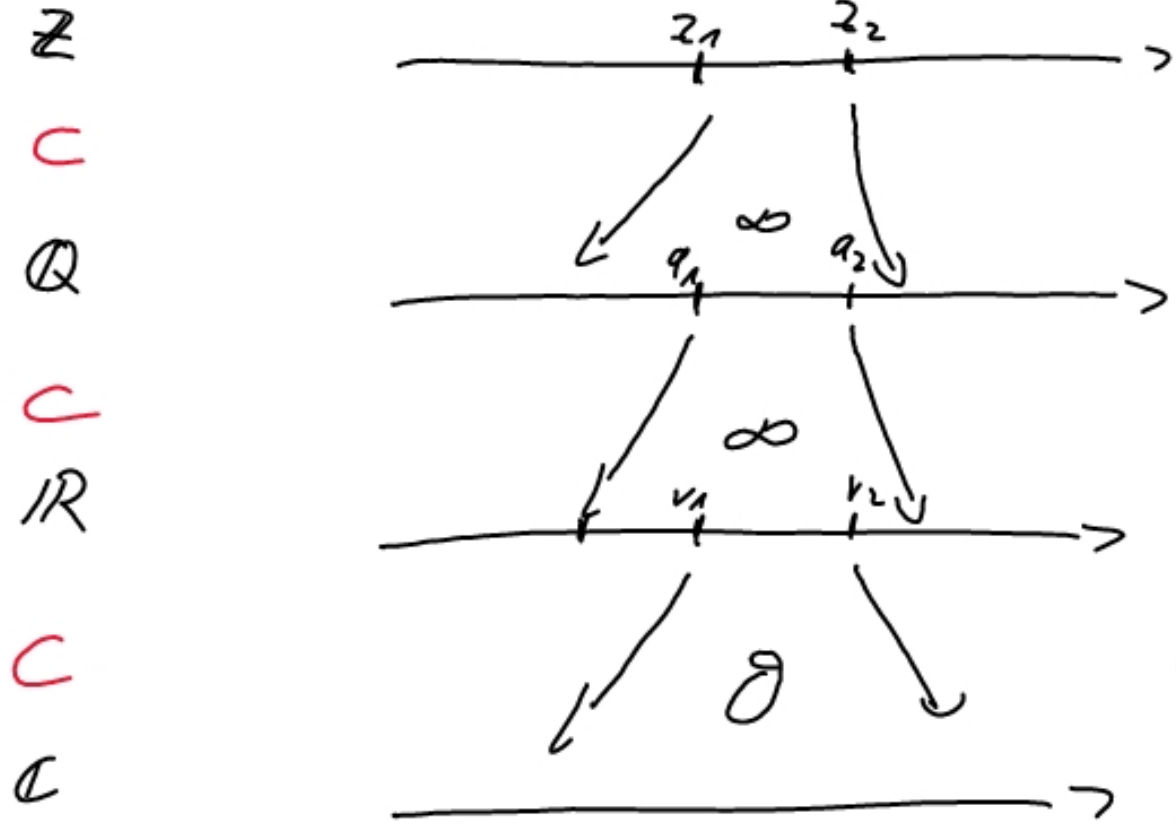
$$a) \quad A \cap B = \{ 9; 15; 21 \} = \{ x \in [9; 21] \mid \begin{array}{l} x \bmod 3 = 0 \wedge \\ x \bmod 2 \neq 0 \end{array} \}$$

$$b) \quad A \cup B = x \in [7; 23]_{\mathbb{N}}$$

$$c) \quad A \setminus B = \{ x \in [8; 22]_{\mathbb{N}} \mid x \bmod 2 = 0 \}$$

$$d) \quad B \setminus A = \{ x \in [7; 23]_{\mathbb{N}} \setminus \{ 9; 15; 21 \} \mid x \bmod 2 \neq 0 \}$$

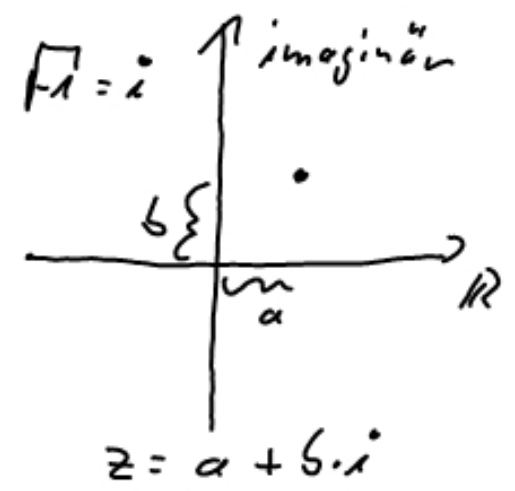
Zahlenmenge-



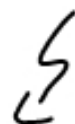
$$\frac{4}{9} = 0.\overline{4}$$

$$\frac{7}{90} = 0,0\overline{7}$$

$$\frac{85}{99} = 0,\overline{85}$$



$$\overline{5 + 37} = \overline{42}$$



$$\overline{5} - \overline{37} = 50 - 8 = 42$$

$$2 \cdot x - 5 = 9 \quad | +5$$

$$2 \cdot x - 5 + 5 = 9 + 5$$

$$2 \cdot x + 0 = 14 \quad | \cdot \frac{1}{2} \quad 0 \text{ ist neutral } (+)$$

$$\frac{1}{2} \cdot 2 \cdot x + 0 = \frac{1}{2} \cdot 14$$

$$1 \cdot x + 0 = 7 \quad 1 \text{ ist neutral } (x)$$

$$x = 7$$