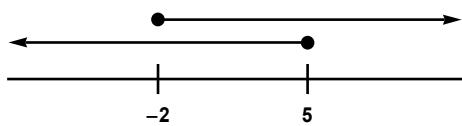


Operace s intervaly

Příklady

Určete sjednocení a průnik intervalů.

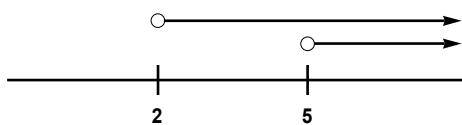
1) $(-\infty; 5), (-2; \infty)$



$$(-\infty; 5) \cup (-2; \infty) = (-\infty; \infty)$$

$$(-\infty; 5) \cap (-2; \infty) = (-2; 5)$$

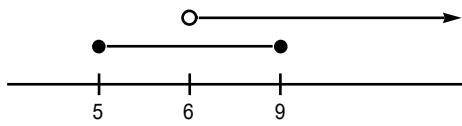
2) $(5; \infty), (2; \infty)$



$$(5; \infty) \cup (2; \infty) = (2; \infty)$$

$$(5; \infty) \cap (2; \infty) = (5; \infty)$$

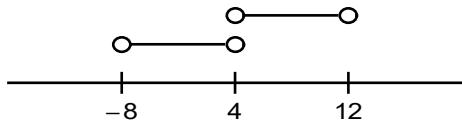
3) $\langle 5; 9 \rangle, (6; \infty)$



$$\langle 5; 9 \rangle \cup (6; \infty) = \langle 5; \infty \rangle$$

$$\langle 5; 9 \rangle \cap (6; \infty) = (6; 9)$$

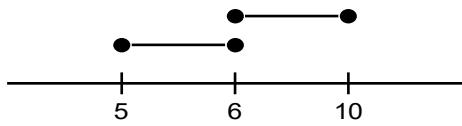
4) $(-8; 4), (4; 12)$



$(-8; 4) \cup (4; 12)$ – toto sjednocení nelze vyjádřit jedním intervalem

$$(-8; 4) \cap (4; 12) = \emptyset$$

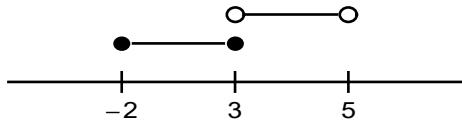
5) $\langle 5; 6 \rangle, \langle 6; 10 \rangle$



$$\langle 5; 6 \rangle \cup \langle 6; 10 \rangle = \langle 5; 10 \rangle$$

$$\langle 5; 6 \rangle \cap \langle 6; 10 \rangle = \{6\}$$

6) $\langle -2; 3 \rangle, (3; 5)$



$$\langle -2; 3 \rangle \cup (3; 5) = \langle -2; 5 \rangle$$

$$\langle -2; 3 \rangle \cap (3; 5) = \emptyset$$

7) $\langle -2; 3 \rangle, (5; \infty)$

A horizontal number line with tick marks at -2, 3, and 5. There are solid dots above the line at -2 and 3, indicating that these points are included in the solution set. A bracket connects these two points. Above the line, there is an open circle at 5 followed by a right-pointing arrow, indicating that all numbers greater than 5 are part of the solution set.

$\langle -2; 3 \rangle \cup (5; \infty)$ – toto sjednocení nelze vyjádřit jedním intervallem

$$\langle -2; 3 \rangle \cap (5; \infty) = \emptyset$$