

Lineárna nerovnica s parametrom

$$2 \cdot (1 - px) > 5x - 3 - 3x(p + 1)$$

$$2 - 2px > 5x - 3 - 3px - 3x$$

$$px - 2x > -5$$

$$4x \cdot (p - 2) > -5 \quad /: (p - 2)$$

$$p - 2 < 0 \Leftrightarrow p < 2$$

otočič sa <

$$\boxed{x < -\frac{5}{p-2}}$$

$$p - 2 = 0 \Leftrightarrow p = 2$$

nemožno deliť

$$x \cdot 0 > -5$$

$$0 > -5$$

$$\boxed{x \in \mathbb{R}}$$

$$p - 2 > 0 \Leftrightarrow p > 2$$

ostáva <

$$\boxed{x > -\frac{5}{p-2}}$$

p	x
$(-\infty; 2)$	$(-\infty; -\frac{5}{p-2})$
2	$\mathbb{R}$
$(2; \infty)$	$(\frac{5}{p-2}; \infty)$

hodinová učiteľka.sk

$$p \cdot (1 - 5x) - 2 \cdot (p - x) < 2x(1 - p)$$

$$p - 5px - 2p + 2x < 2x - 2px$$

$$-5px + 2px < p$$

$$-3px \leq p \quad /: (-3p)$$

$$-3p < 0, \text{ t.j. } p > 0$$

otočič sa znamienko

$$x > \frac{p}{-3p}$$

$$\boxed{x > -\frac{1}{3}}$$

$$-3p = 0$$

$p = 0$

nemožno deliť

$$-3 \cdot 0x < 0$$

$$0 < 0$$

$$\boxed{x \in \emptyset}$$

$$-3p > 0$$

$p < 0$

neotlčá sa znam.

$$x < \frac{p}{-3p}$$

$$\boxed{x < -\frac{1}{3}}$$

p	x
$(-\infty; 0)$	$(-\infty; -\frac{1}{3})$
0	$\emptyset$
$(0; \infty)$	$(-\frac{1}{3}; \infty)$

# LINEÁRNA nerovnica s parametrom

$$p^2x - p > 16x - 4$$

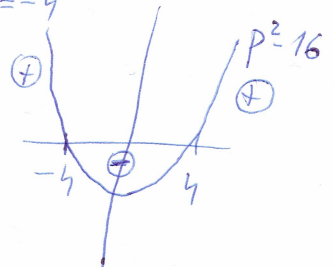
$$p^2x - 16x > p - 4$$

$$x \cdot (p^2 - 16) > p - 4 \quad /: (p^2 - 16)$$

$$p^2 - 16 = 0 \Leftrightarrow (p-4)(p+4) = 0 \Leftrightarrow p = 4 \vee p = -4$$

$$p^2 - 16 > 0 \Leftrightarrow p \in (-\infty; -4) \cup (4; \infty)$$

$$p^2 - 16 < 0 \Leftrightarrow p \in (-4; 4)$$



$$p^2 - 16 < 0$$

$$p \in (-4; 4)$$

deliť a otočiť znamienko

$$x < \frac{p-4}{p^2-16}$$

$$x < \frac{p-4}{(p+4)(p-4)}$$

$$x < \frac{1}{p+4}$$

$$p^2 - 16 = 0$$

$$p \in \{-4, 4\}$$

nerovnicu deliť

$$p = -4$$

$$x \cdot 0 > -8$$

$$0 > -8$$

✓

$$x \in \mathbb{R}$$

$$p = 4$$

$$x \cdot 0 > 0$$

$$0 > 0$$

$$x \in \emptyset$$

$$p^2 - 16 > 0$$

$$p \in (-\infty; -4) \cup (4; \infty)$$

deliť

$$x > \frac{p-4}{p^2-16}$$

$$x > \frac{p-4}{(p+4)(p-4)}$$

$$x > \frac{1}{p+4}$$

p	x
$(-\infty; -4) \cup (4; \infty)$	$(\frac{1}{p+4}; \infty)$
$\{-4\}$	$\mathbb{R}$
$\{4\}$	$\emptyset$
$(-4; 4)$	$(-\infty; \frac{1}{p+4})$