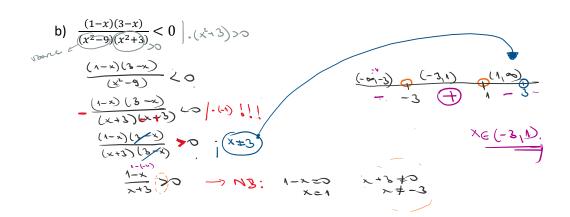
a) 
$$(x-3)$$
  $(2x-1)$   $(2x-1)$ 



c) 
$$\frac{2-3x}{2-x} + \frac{1}{x} > 3 \left| -3 \right|$$

$$\frac{x(2-3x) + (2-x) - 3x(2-x)}{x(2-x)} > 0$$

$$\frac{2x-3x^2 + 22-x-6x+2x^2}{x(2-x)} > 0$$

$$\frac{2x-3x+2x-6x+2x^2}{x(2-x)} > 0$$

$$\frac{2x-3x+2x-6x+2x^2}{x(2-x)} > 0$$

$$\frac{2x-3x+2x-6x+2x^2}{x(2-x)} > 0$$

$$\frac{2x-3x+2x-6x+2x^2}{x(2-x)} > 0$$

$$\frac{2x-3x+2x-6x+2x-6x+2x^2}{x(2-x)} > 0$$

$$\frac{2x-3x+2x-6x+2x$$

d) 
$$\frac{(2x-1)(3-x)}{2x+2} < 0$$
  $\frac{(-x-x)}{2} + \frac{(-x-x)}{2} + \frac{(-$ 

e) 
$$x \ge \frac{6}{5-x}$$
 ;  $x \in \langle 2; 3 \rangle \cup \langle 5; \infty \rangle$ 

$$\underset{5 \to x}{\underbrace{\langle 5-\lambda \rangle^{-1} \langle 5 \rangle}} \ge 0$$

f) 
$$\frac{\frac{3}{x-2} + \frac{2}{x+1} \ge 0; \ x \in \left(-1; \frac{1}{5}\right) \cup (2; \infty)}{\underbrace{2 \left(x+1\right) \times 2 \left(x-2\right)}_{(x-1)} \ge 0}$$

- otestuj sa: https://www.skolasnadhledem.cz/game/953
- na pomoc:
  - o https://www.youtube.com/watch?v=cxHTdlir89Y
  - o https://www.youtube.com/watch?v=bfh8EUrJSu8
- na precvičenie

## Rovnice, nerovnice v súčinovom a podielovom tvare

1. Riešte v R

a) 
$$(x-1)(2x-3)(x+2)=0$$

a) 
$$(x-1)(2x-3)(x+2)=0$$
 b)  $(x^2-3x)(x-\sqrt{5})=0$  c)  $(4x^2-1)(1-5x)=0$ 

c) 
$$(4x^2-1)(1-5x)=0$$

2. Riešte v R

a) 
$$(x-2)(4x-1)(2x+6) > 0$$
 b)  $(x^2-x)(3-x) \le 0$  c)  $(x^2-16)(4-3x) \ge 0$ 

b) 
$$(x^2 - x)(3 - x) \le 0$$

c) 
$$(x^2 - 16)(4 - 3x) \ge 0$$

d) 
$$(x^2 - 16)(3 - x^2) \le 6$$

e) 
$$(x^2 + 2)(2 - x) > 0$$

d) 
$$(x^2 - 16)(3 - x^2) \le 0$$
 e)  $(x^2 + 2)(2 - x) > 0$  f)  $(3x^3 - 6x^2)(x + 10) > 0$ 

g) 
$$(3x^3 - 6x^2)(x+10) \ge 0$$

3. Riešte v R

a) 
$$\frac{x-4}{2x-5} > 0$$

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

b) 
$$\frac{x+3}{1-x} > 2$$
 c)  $\frac{x+2}{x^2-25} \le 0$ 

d) 
$$\frac{9-4x^2}{x^2+x} \ge 0$$

e) 
$$\frac{x-4}{x+2} + \frac{x+1}{3-x} > 0$$
 f)  $\frac{x^2-4}{x^2-25} \ge 1$ 

f) 
$$\frac{x^2-4}{x^2-25} \ge 1$$

## Výsledky

1. a) -2; 1; 3/2 b) 0; 3;  $\sqrt{5}$  c)  $\pm \frac{1}{2}$ ; 1/5

2. a)  $(-3; \frac{1}{4}) \cup (2; \infty)$  b)  $<0; 1> \cup <3; \infty)$  c)  $(-\infty; -4> \cup <3/4; 4>$  d)  $(-\infty; -4> \cup <-\sqrt{3}; \sqrt{3}> \cup <4; \infty)$ 

e)  $(-\infty; 2)$  f)  $(-\infty; -10) \cup (2; \infty)$  g)  $(-\infty; -10) \cup (2; \infty) \cup \{0\}$ 

3. a)  $(-\infty; 5/2) \cup (4; \infty)$  b) (-4; 1) c)  $(-\infty; -5) \cup (-2; 5)$  d)  $(-3/2; -1) \cup (0; 3/2)$ 

e)  $(-\infty; -2) \cup (1; 3)$  f)  $(-\infty; -5) \cup (5; \infty)$