

$$1) a) y = \sqrt{5-x} + \frac{2}{\sqrt{2x-4}}$$

Alustad tingimuse
välja kirjeldamisest!

$$\begin{cases} 5-x \geq 0 \Rightarrow x \leq 5 \\ 2x-4 > 0 \Rightarrow 2x > 4 \Rightarrow x > 2 \end{cases}$$

range võttes -
nimetaja!

$$X =]2; 5]$$

$$b) y = \frac{1-x}{x^2-x-6}$$

$x^2-x-6 \neq 0$ - tingimus nimetaja kohta!

$$x^2-x-6=0 \quad x = \frac{1}{2} \pm \sqrt{\frac{1}{4}+6} = \frac{1}{2} \pm \sqrt{6,25} =$$

$$= -0,5 \pm 2,5 \quad \begin{matrix} x_1 = 3 \\ x_2 = -2 \end{matrix}$$

$$X = \mathbb{R} \setminus \{-2; 3\}$$

$$c) y = \sqrt{\frac{x^2-2x}{x}}$$

$$\frac{x^2-2x}{x} \geq 0 \Leftrightarrow x(x-2) \cdot x \geq 0 \Leftrightarrow x^2(x-2) \geq 0$$

nimetaja nullkoht aj / jao piirkonda! $x_{1,2} = 0 \quad x_3 = 2$



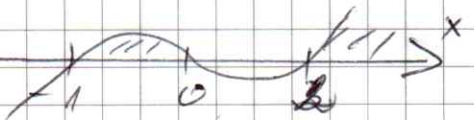
$$X = [2; \infty[$$

$$d) y = \sqrt{(x-2)(x^2+x)}$$

$$(x-2)(x^2+x) \geq 0$$

$$x(x-2)(x+1) \geq 0$$

$$x_1 = 0 \quad x_2 = 2 \quad x_3 = -1$$



$$X = [-1; 0] \cup [2; \infty[$$

$$e) y = \log_4 \frac{-x+6}{x-2}$$

Tingimus - logaritmitas positiivne!

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

$$x_1 = 6 \quad x_2 = 2$$



$$X =]2; 6[$$