

Funktsiooni mõiste, esitusviisid, graafik

1. Milline funktsioon on antud ilmutatud kujul?

a) $yx + 2 - \ln y = 0$

b) $y = x + 2 - \ln x$

c) $\begin{cases} y = 2 + t \\ x = -1 - 3t \end{cases}$

d) $y = 8$

2. Leida funktsiooni väärtus.

a) $f(x) = -x^2 + x$, $f(1) = ?$

b) $g(t) = \sqrt[3]{-t} + 3 \log_2 \frac{t}{2}$, $g(8) = ?$

c) $s(\phi) = \sin 2\phi - \cos^2 \frac{\phi}{3}$, $s(\pi) = ?$

3. Joonisel on antud funktsioonide graafikud. Leida igale graafikule vastav valem.

1) $y = \sqrt{4-x}$

2) $y = -4x + 3$

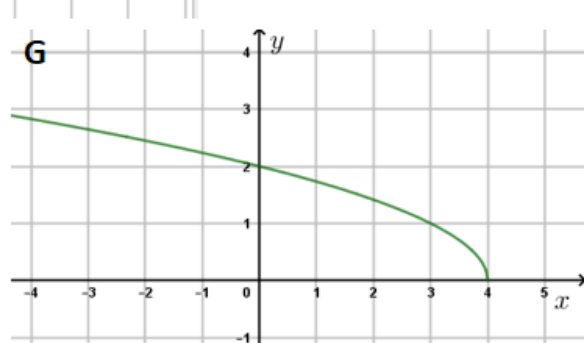
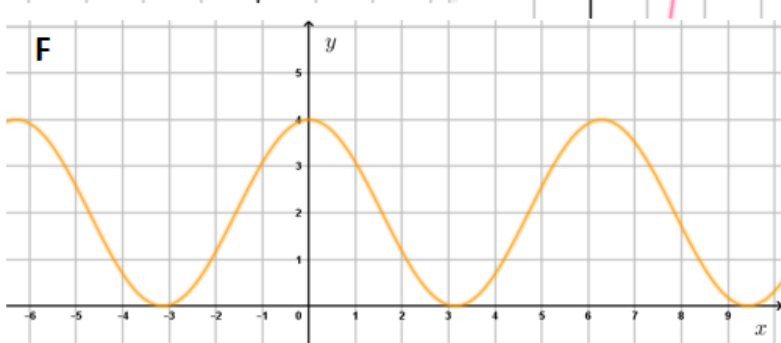
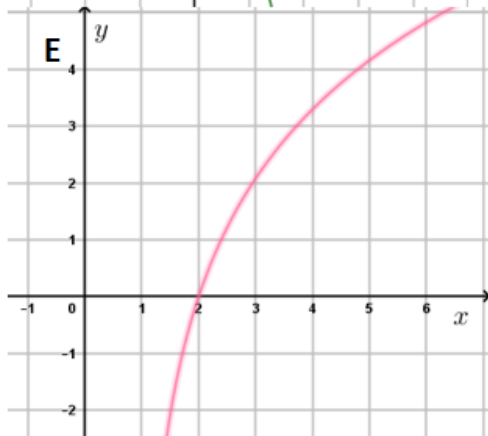
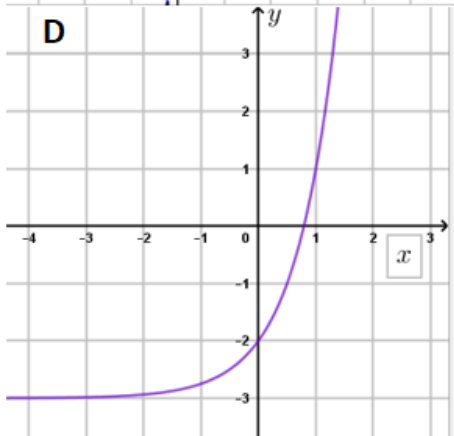
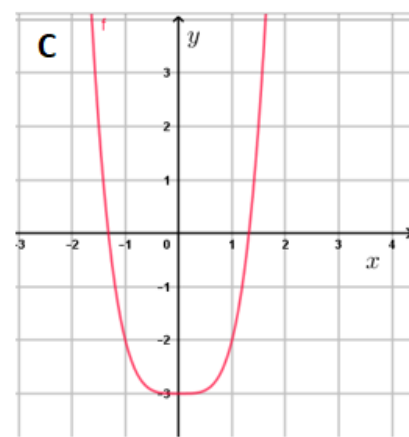
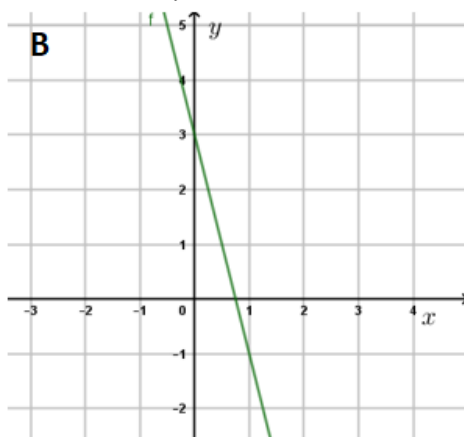
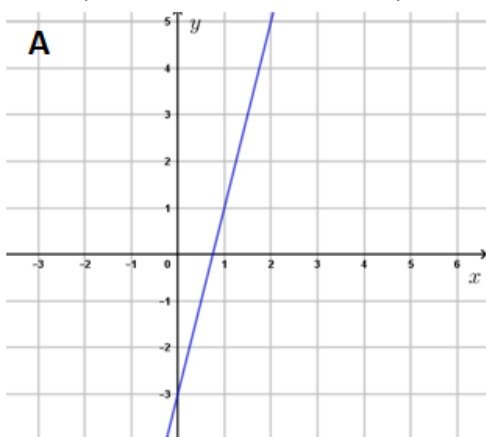
3) $y = 2 \cos x + 2$

4) $y = x^4 - 3$

5) $y = 4x - 3$

6) $y = 4^x - 3$

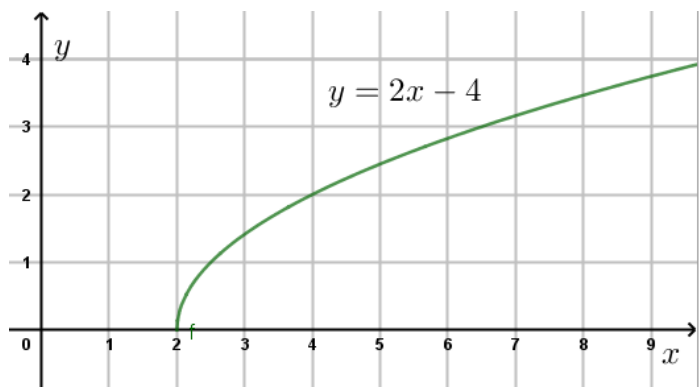
7) $y = 3 \ln(x-1)$



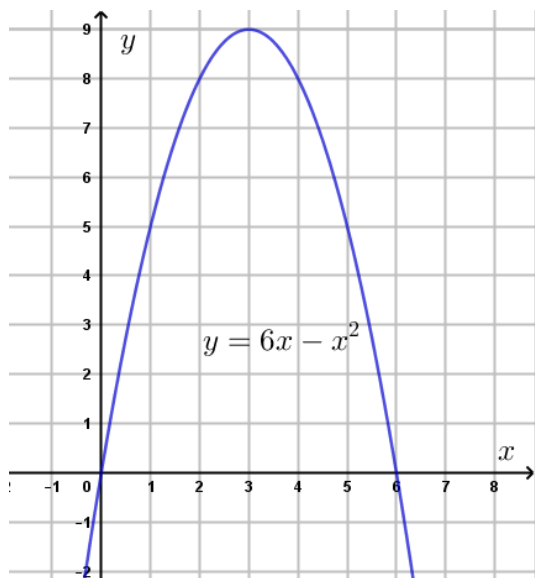
4. Leida graafiku järgi:

- X - funktsiooni määramispiirkond
- Y - funktsiooni muutumispiirkond
- X^0 - funktsiooni nullkohad
- X^+ - funktsiooni positiivsuspiirkond

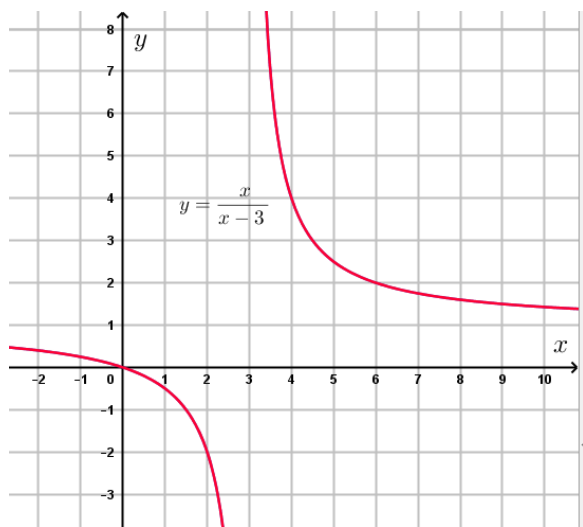
- X^- - funktsiooni negatiivsuspiirkond
- $X \uparrow$ - funktsiooni kasvamispiirkond
- $X \downarrow$ - funktsioonikahenemispiirkond



- $X = \dots\dots\dots$
- $Y = \dots\dots\dots$
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Vastused

1. b) ja d)
2. a) 0; b) 4; c) -0,25
3. A5; B2; C4; D6; E7; F3; G1