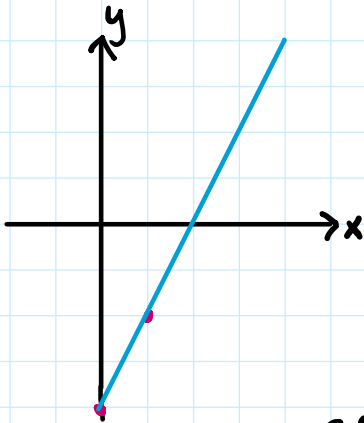


Suoran yhtälö

$$y = kx + b$$

kulmakerroin

$$k = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$



esim. $y = 2x - 4$

$$\begin{array}{l} x=0 \\ x=1 \\ \vdots \end{array} \quad \begin{array}{l} y = 2 \cdot 0 - 4 = -4 \\ y = 2 \cdot 1 - 4 = -2 \\ \vdots \end{array} \quad \begin{array}{l} (0, -4) \\ (1, -2) \end{array}$$

esim. $k = 5$ ja suoralla on piste $(3, 8)$
Mikä on suoran yhtälö?

$$y = kx + b$$

$$y = 5x + b$$

$$\begin{array}{l} 5 \cdot 3 + b = 8 \\ 15 + b = 8 \end{array}$$

$$V: \underline{y = 5x - 7}$$

$$\begin{array}{l} b = 8 - 15 \\ b = -7 \end{array}$$

esim. suoralla on pisteet $(-5, -1)$ ja $(-7, 3)$
suoran yhtälö?

$$k = \frac{3 - (-1)}{-7 - (-5)} = \frac{3 + 1}{-7 + 5} = \frac{4}{-2} = -2$$

$$y = -2x + b$$

sijoitetaan

$$\begin{array}{l} -2 \cdot (-5) + b = -1 \\ 10 + b = -1 \end{array}$$

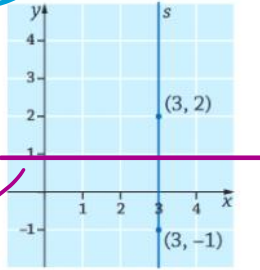
$$\begin{array}{l} b = -1 - 10 \\ b = -11 \end{array}$$

$$V: \underline{y = -2x - 11}$$

226

228

c)



yhtälö: $y=1$

$k = \frac{2 - (-1)}{3 - 3} = \frac{3}{0}$ ei voi jakaa \rightarrow ei kulmakertointa

yhtälö: $x=3$