Jak určit funkční rovnici lineární funkce, jestliže známe její graf

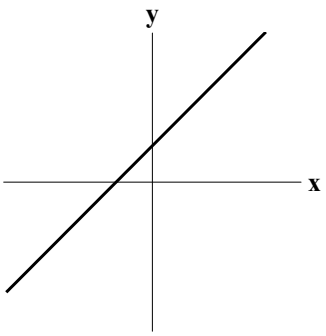
Funkční rovnice lineární funkce: $y = ax + b$

Výpočet koeficientu *a* z grafu

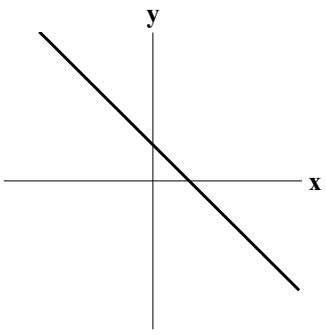
Na grafu funkce najdeme dva mřížové body a sestrojíme příslušný trojúhelník, pak $|a| = \frac{\Delta y}{\Delta x}$

Znaménko koeficientu *a*

$a > 0$



$a < 0$

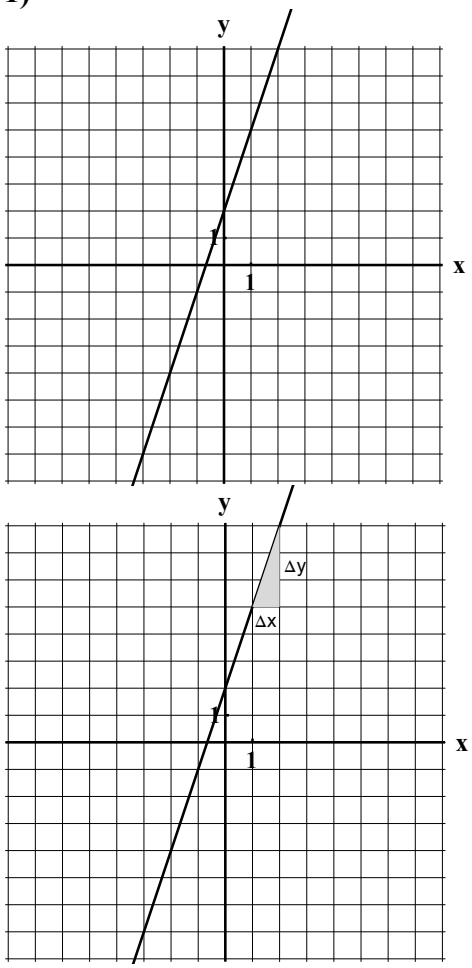


Koeficient *b* udává y – ovou souřadnici průsečíku přímky s osou *y*.

Příklady

Určete funkční rovnici následujících funkcí:

1)



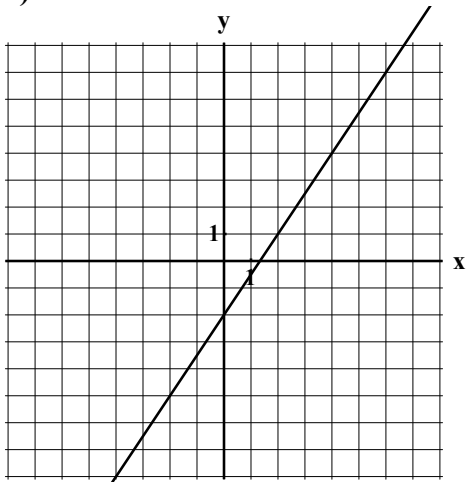
$$|a| = \frac{\Delta y}{\Delta x} = \frac{3}{1} = 3$$

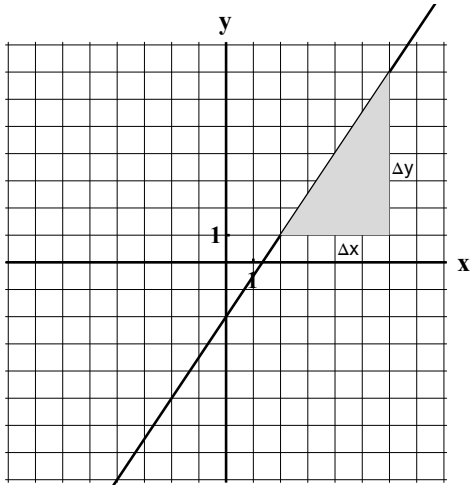
$$a = 3$$

$$b = 2$$

$$y = 3x + 2$$

2)





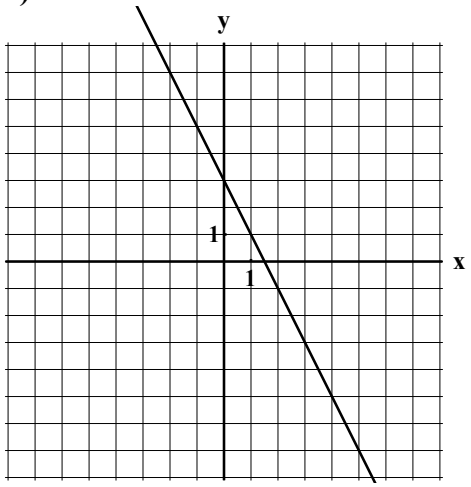
$$|a| = \frac{\Delta y}{\Delta x} = \frac{6}{4} = \frac{3}{2}$$

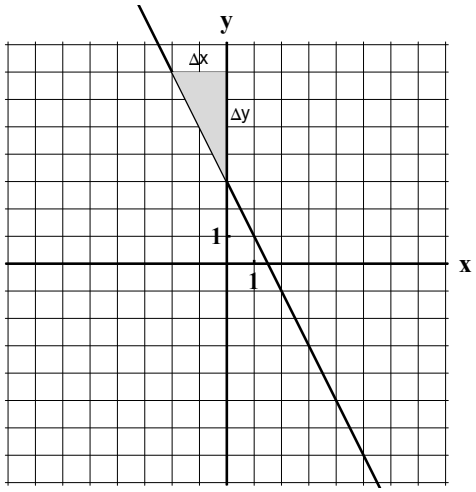
$$a = \frac{3}{2}$$

$$b = -2$$

$$y = \frac{3}{2}x - 2$$

3)





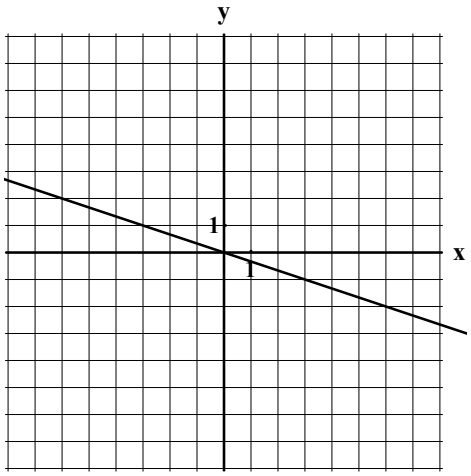
$$|a| = \frac{\Delta y}{\Delta x} = \frac{4}{2} = 2$$

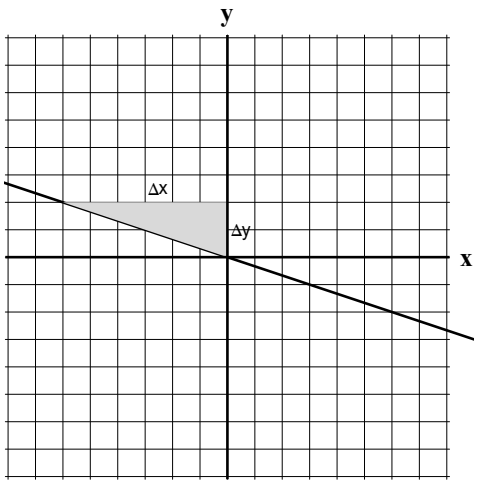
$a = -2$

$b = 3$

$y = -2x + 3$

4)





$$|a| = \frac{\Delta y}{\Delta x} = \frac{2}{6} = \frac{1}{3}$$

$$a = -\frac{1}{3}$$

$$b = 0$$

$$y = -\frac{1}{3}x$$