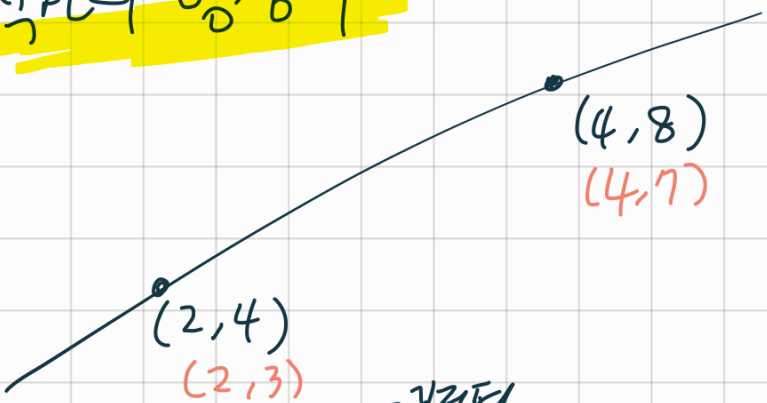
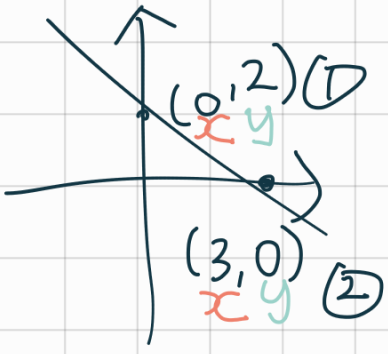
직선의 방정식



$y = mx + b$ ← y절편

m ↓ 기울기 (slope)

x y



$$\frac{y_2 - y_1}{x_2 - x_1}$$

$y = mx + b$

$m = \frac{0-2}{3-0} = \frac{-2}{3}$

$2 = 0 + b$ (0,2)

$b = 2$ (3,0)

$0 = -\frac{2}{3} \cdot 3 + 2$

$0 = -2 + 2$

$=$

$m = \frac{8-4}{4-2} = \frac{4}{2}$

$y = 2x + b$

$2 \times 2 + b = 4$

$y = xm + b$

$m = \frac{7-3}{4-2} = \frac{4}{2} = 2$

(4,7)
(2,3)

$7 = 4 \cdot 2 + b$

$7 = 8 + b$

$b = 7 - 8 = -1$

$7 = 2 \cdot 4 + (-1)$

$7 = 8 - 1$

$3 = 2 \cdot 2 + (-1)$

$= 4 - 1$

$3 = 3$

$y = mx + b$

m 기울기 $\frac{8-4}{4-2} = \frac{4}{2} = 2$

$y = 2x + b$

$b = y - 2x$

$= 8 - 2 \cdot 4$

$= 8 - 8$

$= 0$

(2,4)
(4,8)

$4 = 2 \cdot 2 + 0$

$= 4$

$8 = 2 \cdot 4 + 0$

$= 8$

$v = f(x_1, x_2, x_3)$

$= 2x_1^2 + 4x_2^3 \log x_1 + 5x_1 x_2 x_3^2 \log x_2$

$\frac{\partial v}{\partial x_1} = ?$

$\frac{\partial v}{\partial x_2} = ?$

$\frac{\partial v}{\partial x_3} = ?$

Product Rule

$(P(x)\,q(x))'$

$= p'(x)q(x) + p(x)(x)$

$\log_2 \sqrt{8} + \log_9 \sqrt{27}$

$= ?$

$\log_a b = \frac{\log b}{\log a}$