

ACT
KMS
6/09

① LINES p AND N lie in the STANDARD $(x-y)$ COORDINATE PLANE. AN EQUATION for line p is $y = 0.12x + 3,000$. The SLOPE of line N is 0.1 greater than the SLOPE of line p . What is the SLOPE of line N ?

② The graph of $y = -5x^2 + 9$ passes through $(1, 2a)$ in the STANDARD (x, y) COORDINATE PLANE. What is the value of a ?

$$\begin{array}{lcl}
 \textcircled{1} p \Rightarrow y = 0.12x + 3000 & \left\{ & \textcircled{2} y = f(x) = -5x^2 + 9 \\
 \quad \quad \quad \uparrow & & f(1) = -5(1)^2 + 9 \\
 \quad \quad \quad m & & = 4 \\
 m + 0.10 = 0.22 & & (1, 2a) = (1, 4) \quad \boxed{a = 2} \\
 & & \begin{array}{cc} x, f(x) & x, f(x) \\ x, y & x, y \end{array}
 \end{array}$$

• HW Review (next pg.)

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④ $m=2, b=-5$

⑤ $m=-\frac{3}{2}, b=5$

⑥ $y=\frac{1}{2}x+1$

⑦ $y=-\frac{3}{4}x+2$

⑧ $y=-\frac{5}{2}x+16$

⑨ $y=-\frac{3}{5}x+\frac{16}{5}$

⑩ $y=-x-2$

$m=1 \therefore m_{\perp}=-1$

⑪ $m = \frac{2}{2\frac{1}{2}} = \frac{2}{\frac{5}{2}} = \frac{4}{5} = m$ $b=0$

$\therefore y = \frac{4}{5}x$

⑫ $(4, 3), (7, -2)$ $m = \frac{-2-3}{7-4} = \frac{-5}{3} = m$

$x, y \Rightarrow 3 = -\frac{5}{3} \cdot 4 + b$

$3 = -\frac{20}{3} + b$

Since $3 = \frac{9}{3}$

$+\frac{29}{3} = b$

$\therefore y = -\frac{5}{3}x + \frac{29}{3}$

⑬ $y = -4$

$m=0 \Rightarrow y = m^{\circ}x + b$
Horizontal
line $y = b$