

Midpt

① (-7, 5) ② (4, -5) ③ (-4, 6)

④ (-2, 11) ⑤ (4, $\frac{1}{2}$) ⑥ ($-\frac{1}{2}$, 7)

⑦ ($\frac{7}{2}$, $\frac{1}{2}$) ⑧ ($\frac{5}{4}$, $\frac{11}{4}$) ⑨ ($-\frac{7}{2}$, $\frac{11}{8}$)

⑩ ($\frac{5}{4}$, $\frac{1}{2}$) ⑪ (6, $-\frac{1}{2}$) ⑫ (0, $\frac{1}{2}$)

③ (-6, 1) and (-2, 11)

$$M = \left(\frac{-6 + -2}{2}, \frac{1 + 11}{2} \right)$$

$$M = \left(\frac{-8}{2}, \frac{12}{2} \right)$$

$$M = (-4, 6)$$

⑧ ($\frac{1}{2}$, 3) and ($2, \frac{5}{2}$)

$$M = \left(\frac{\frac{1}{2} + 2}{2}, \frac{3 + \frac{5}{2}}{2} \right)$$

$$M = \left(\frac{\frac{1}{2} + 2}{2}, \frac{\frac{6}{2} + \frac{5}{2}}{2} \right)$$

$$\left(\frac{\frac{5}{2}}{2}, \frac{\frac{11}{2}}{2} \right)$$

$$\left(\frac{5}{4}, \frac{11}{4} \right)$$

$$\begin{array}{l} \frac{1}{2} + 2 = \frac{5}{2} \\ \frac{5}{2} : 2 = \frac{5}{4} \\ \frac{6}{2} + \frac{5}{2} = \frac{11}{2} \\ \frac{11}{2} : 2 = \frac{11}{4} \end{array}$$

WS 15k

- (1) $y = \frac{5}{3}x + \frac{11}{3}$ (5) $y = -\frac{1}{7}x + \frac{13}{7}$ (8) $y = 7$
 (2) $y = 3$ (6) $y = 3x - 1$ (9) $y = \frac{1}{5}x - \frac{33}{5}$
 (3) $y = -2x + 10$ (7) $y = -\frac{4}{3}x + 9$ (10) $y = -\frac{5}{3}x + \frac{43}{6}$
 (4) $y = 0$

(6) through Midpoint of $(-1, 0)$ and $(0, -5)$
parallel to $y = 3x - 9$

$y = 3x + b$

$M = (\frac{-1+0}{2}, \frac{0+(-5)}{2})$

$(-\frac{1}{2}) = 3(-\frac{1}{2}) + b$

$\frac{-5}{2} = -\frac{3}{2} + b$

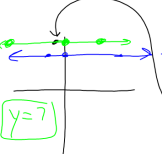
$-5 = -3 + 2b$

$-2 = 2b$

$-1 = b$

$y = 3x - 1$

(8) || to $y = 6$ through Midpoint of $(1, 9)$ and $(-2, 5)$



$M = (\frac{1+(-2)}{2}, \frac{9+5}{2})$

$(-\frac{1}{2}, 7)$

(10) through Midpt of $(-7, 4)$ and $(5, 7)$

\perp to $5y - 3x = 10$

$5y = 3x + 10$

old line $y = \frac{3}{5}x + 2$

$M = (\frac{-7+5}{2}, \frac{4+7}{2})$

$M = (-1, \frac{11}{2})$

$m_{\perp} = -\frac{5}{3}$

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

$(-\frac{11}{2}) = -\frac{5}{3}(-1) + b$

$\frac{11}{2} = -\frac{5}{3} + b$

$33 = -10 + 6b$

$43 = 6b$

$\frac{43}{6} = b$

$y = -\frac{5}{3}x + \frac{43}{6}$