Midpt

(1) $(-7,5)$ (2) $(4,-5)$ (3) $(-4,6)$

(4) $(-2,11)$ (5) $(4,\frac{3}{2})$ (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 $(2,\frac{5}{2})$

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

$M = \left(\frac{\frac{1}{2}+\frac{4}{2}}{2}, \frac{\frac{6}{2}+\frac{5}{2}}{2}\right)$

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

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

mp mp: $1 \to \frac{5}{20}$

mp mp: $\frac{5}{5} = \frac{15}{20}$

mp mp: $\frac{7}{7} = \frac{21}{28}$

WS 15K

(1) $y = \frac{5}{3}x + \frac{11}{3}$

(2) $y = 3$

(3) $y = -2x + 10$

(4) $y = 0$

(5) $y = -\frac{1}{7}x + \frac{13}{7}$

(6) $y = 3x - 1$

(7) $y = -\frac{4}{3}x + 9$

(8) $y = 7$

(9) $y = \frac{1}{5}x - \frac{33}{5}$

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

(6) through Midpoint of $(-1,0)$ and $(0,-5)$ parallel to $y = 3x - 98$

$y = 3x + b$

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

$\left(\frac{-1}{2}, \frac{-5}{2}\right)$

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

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

$\cdot 2 \quad \cdot 2 \quad \cdot 2$

$-5 = -3 + 2b$

$-2 = 2b$

$-1 = b$

$y = 3x - 1$

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

x	y
0	6
-1	6
5	6

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

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

$y = 7$

(10) through $\perp$ to $5y - 3x = 10$

Midpt of $(-3,4)$ and $(5,7)$

$+3x \quad +3x$

$5y = 3x + 10$

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

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

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

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

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

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

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

$\cdot 6 \quad \cdot 6 \quad \cdot 6$

$33 = -10 + 6b$

$43 = 6b$

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

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