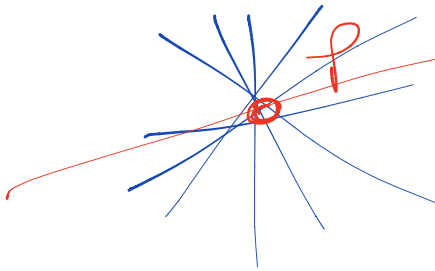


$$P(-3, -3)$$

$$15x + 12y - 7k - 3 = 0$$



$$15(-3) + 12(-3) - 7k - 3 = 0$$

$$-45 - 36 - 7k - 3 = 0$$

$$7k = -84 \Rightarrow k = -\frac{84}{7} = -12$$

$$Q(8, -7)$$

$$y + 3 = m(x + 3)$$

$$-7 + 3 = m(8 + 3)$$

$$m = -\frac{4}{11}$$

$$y+3 = -\frac{4}{11}(x+3)$$

$$y = -\frac{4}{11}x - \frac{12}{11} - 3$$

$$y = -\frac{4}{11}x - \frac{45}{11}$$

$$11y = -4x - 45$$

$$4x + 11y + 45 = 0$$

$$y+3 = m(x+3)$$

$$A(2,4) \quad B(6,-5)$$

$$m_{AB} = \frac{-5-4}{6-2} = -\frac{9}{4}$$

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

$$y - y_0 = m(x - x_0)$$

n.35

$$4kx - 2y + k - 3 = 0$$

$$m_k = \frac{-4k}{-2} = 2k$$

$$2y - 2x = 2x - y - 1$$

$$4x - 3y - 1 = 0$$

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

$$m_k = m \Rightarrow 2k = \frac{4}{3} \Rightarrow k = \frac{2}{3}$$

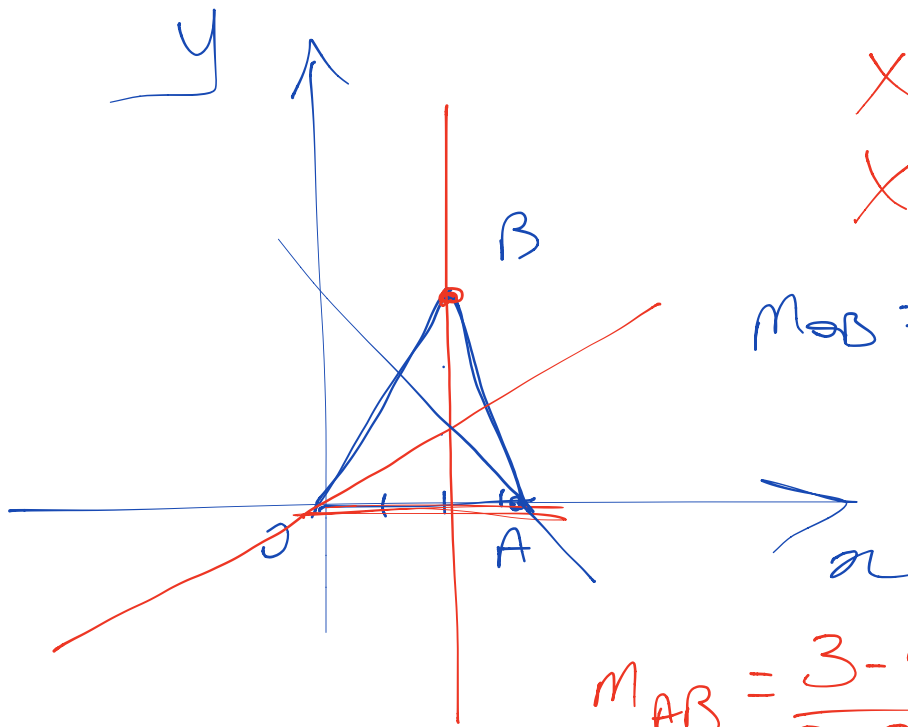
$$6y - 8x + 5 = 0 \quad ; \quad 8x - 6y - 5 = 0$$

$$A \left(0; -\frac{1}{3} \right)$$

$$d = \frac{|8 \cdot 0 - 6 \left(-\frac{1}{3}\right) - 5|}{\sqrt{64 + 36}} =$$

$$= \frac{|2 - 5|}{\sqrt{100}} = \frac{3}{10}$$

n.22 $O(0,0)$ $A(3,0)$ $B(2,3)$



$$x = h$$

$$x = 2$$

$$m_{OB} = \frac{3}{2}$$

$$m_{AB} = \frac{3-0}{2-3} = -3$$

$$y = mx$$

$$\begin{cases} y = \frac{1}{3}x \\ x = 2 \end{cases} \quad H\left(2; \frac{2}{3}\right)$$

$$y - 0 = m(x - 3) \quad y = mx - 3m$$

$$y = -\frac{2}{3}x - 3\left(-\frac{2}{3}\right); \quad y = -\frac{2}{3}x + 2$$

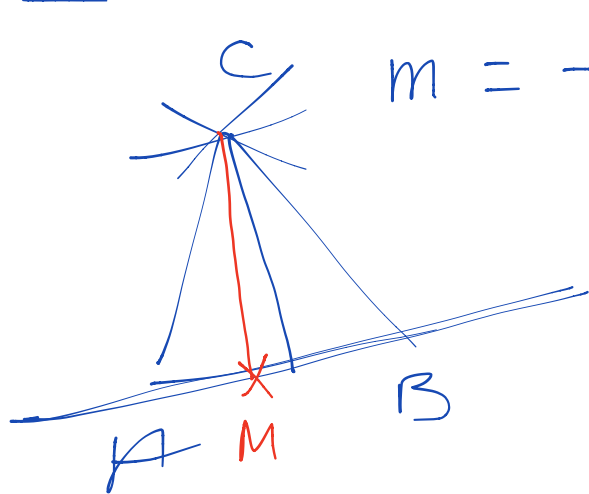
$$\frac{2}{3} = -\frac{2}{3} \cdot 2 + 2$$

n. 39

A(1; 6)

B(2; 5)

C(-6; -1)



$$m = -\frac{1}{m_{AB}}$$

$$y + 1 = m(x + 6)$$

$$m_{AB} = -1$$

$$y = x + 5$$

$$M_{AB} \left(\frac{3}{2}; \frac{11}{2} \right)$$

$$\frac{x + 6}{\frac{3}{2} + 6} = \frac{y + 1}{\frac{11}{2} + 1}$$