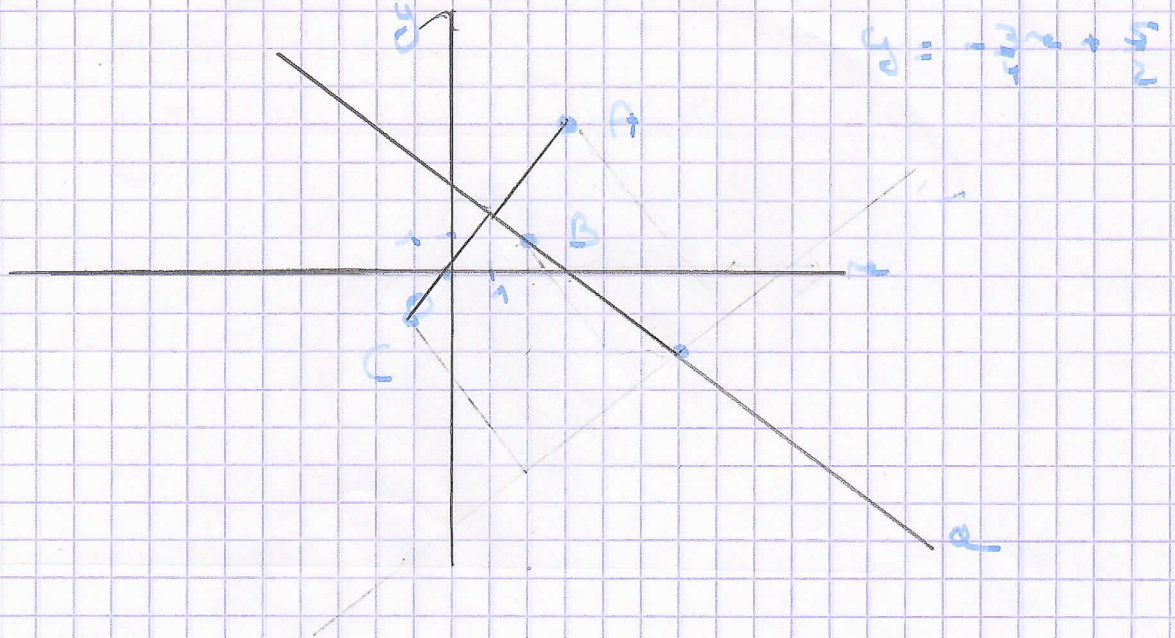


3. $A(3; 4) B(2; 1) C(-1; 1) d = 3x + 4y - 10 = 0.$



$$d(A; d) = \frac{|3 \cdot 3 + 4 \cdot 4 - 10|}{\sqrt{3^2 + 4^2}} = \frac{15}{5} = 3$$

$$d(B; d) = \frac{|3 \cdot 2 + 4 \cdot 1 - 10|}{5} = 0$$

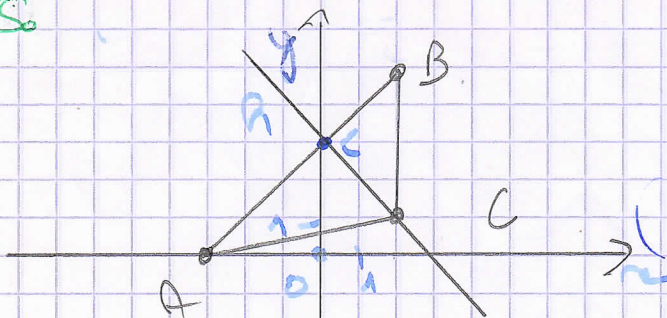
$$d(C; d) = \frac{|3 \cdot (-1) + 4 \cdot 1 - 10|}{5} = \frac{11}{5}$$

4. $d = 2x - 3y = 6 \quad d' = 4x - 6y = 25.$
 $y = \frac{2}{3}x - 2$
 $\frac{p}{q} = \frac{p'}{q'} = \frac{2}{-3} = \frac{4}{-6} = \frac{1}{-1.5} \neq \frac{1}{-2} \Rightarrow d \not\parallel d'$

$x = 3, y = 2 - 2 = 0 \Rightarrow A(3, 0) \in d.$

$$d(A; d') = \frac{|4 \cdot 3 - 6 \cdot 0 - 25|}{\sqrt{4^2 + 6^2}} = \frac{13}{\sqrt{52}} = \frac{13}{2\sqrt{13}} = \frac{\sqrt{13}}{2}$$

5



$$d_{AB} = \frac{5 \cdot 0}{2 + 3} = 1$$

$$(d_{AC} = -1)$$

$$\left(\begin{array}{l} d = y = x + p \\ 1 = 2 + p \\ p = -1 \end{array} \right) \quad \left(\begin{array}{l} d = y = -x + 3 \end{array} \right)$$

$$AB \equiv y = x + p$$

$$A \in AB \cdot 0 = 0 + p \Rightarrow p = 0$$

$$AB \equiv y = x + 3$$

$$d(C; AB) = \frac{|2 - 1 + 3|}{\sqrt{1+1}} = \frac{4}{\sqrt{2}} = 2\sqrt{2}$$