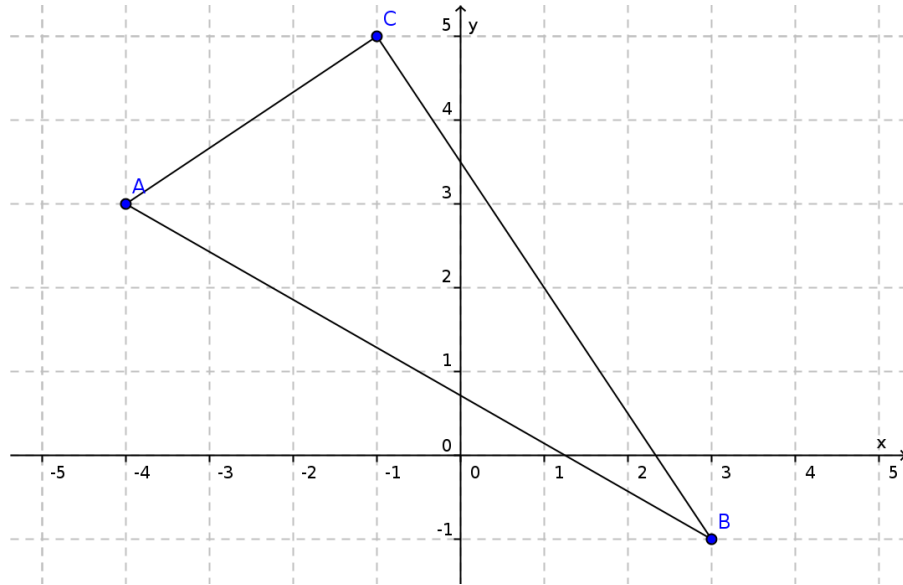


## Correction du mini devoir seconde n°1

1)



$$2) AB^2 = (x_B - x_A)^2 + (y_B - y_A)^2 = (3 - (-4))^2 + ((-1) - 3)^2 \\ = 7^2 + 4^2 = 49 + 16 = 65.$$

$$AC^2 = (x_C - x_A)^2 + (y_C - y_A)^2 = ((-1) - (-4))^2 + (5 - 3)^2 = 3^2 + 2^2 = 9 + 4 = 13.$$

$$BC^2 = (x_B - x_C)^2 + (y_B - y_C)^2 = (3 - (-1))^2 + ((-1) - 5)^2 = 4^2 + 6^2 = 16 + 36 = 52.$$

Or  $AB^2 = AC^2 + BC^2$  donc ABC est rectangle en C.

$$3) \overrightarrow{AB} \begin{pmatrix} x_B - x_A = 3 - (-4) = 7 \\ y_B - y_A = (-1) - 3 = -4 \end{pmatrix}, \quad \overrightarrow{BC} \begin{pmatrix} x_C - x_B = (-1) - 3 = -4 \\ y_C - y_B = 5 - (-1) = 6 \end{pmatrix} \text{ et} \\ \overrightarrow{AC} \begin{pmatrix} x_C - x_A = (-1) - (-4) = 3 \\ y_C - y_A = 5 - 3 = 2 \end{pmatrix}.$$