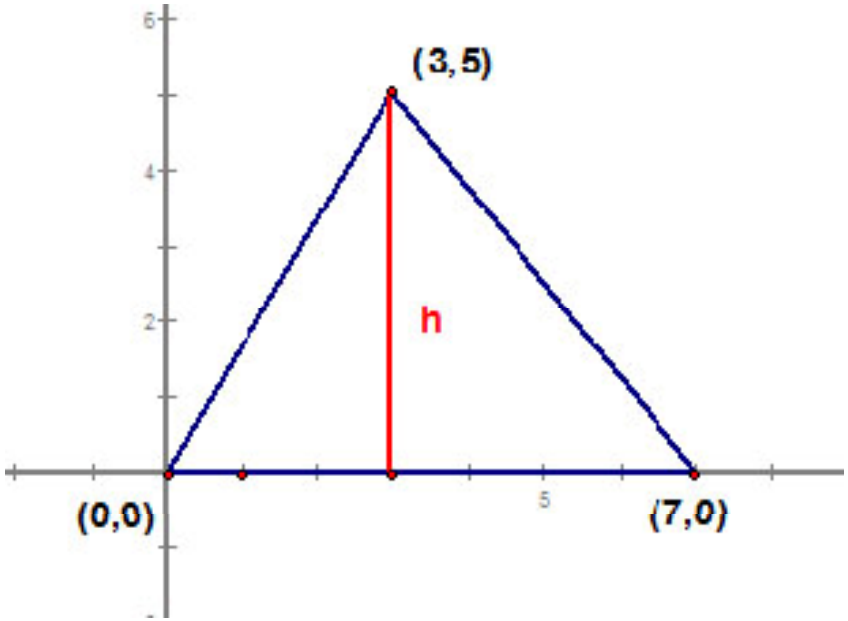
Find the perimeter and area of the triangle whose vertices are
(0,0), (7,0), & (3,5)

- First sketch the triangle:



- Recall the distance formula:

$$If\ \ P=(x_1,y_1)\ and\ \ Q=(x_2,y_2),\ then\ \ PQ=\sqrt{\left(x_2-x_1\right)^2+\left(y_2-y_1\right)^2}\ .$$

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- The lengths of the 3 sides are:

$$\sqrt{(7-0)^2+(0-0)^2}=7\ \ ,\ \ \sqrt{(3-7)^2+(5-0)^2}=\sqrt{41}\ \ ,\ \ \sqrt{(3-0)^2+(5-0)^2}=\sqrt{34}$$

- The perimeter is $7+\sqrt{41}+\sqrt{34}=19.23$

- The height is 5 and the base is 7.

$$Area=\frac{1}{2}\times base\times height\ =\frac{1}{2}\times 7\times 5=17.5$$