

OBO Emmanuel
18/ENG 02/065
computer ENG
Mat 102

1) $A(6, 5), B(-2, 1), C(0, 3)$

$$\begin{aligned}\overline{AB} &= \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} \\ &= \sqrt{(-2 - 6)^2 + (1 - 5)^2} \\ &= \sqrt{(-8)^2 + (-4)^2} \\ &= \sqrt{64 + 16} \\ &= \sqrt{80}\end{aligned}$$

$= 10$

$$\overline{AC} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$\begin{aligned}\overline{AC} &= \sqrt{(0 - 6)^2 + (3 - 5)^2} \\ &= \sqrt{(-6)^2 + (-2)^2} \\ &= \sqrt{36 + 4} \\ &= \sqrt{40} \\ &= 10\end{aligned}$$

$$\begin{aligned}\overline{BC} &= \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} \\ &= \sqrt{(0 - (-2))^2 + (3 - 1)^2} \\ &= \sqrt{2^2 + 2^2} \\ &= \sqrt{4 + 4} \\ &= \sqrt{8} \\ &= 2.83\end{aligned}$$

$\overline{AB} = \overline{AC}$ therefore $\triangle ABC$ is isosceles triangle

2) $P(-5, -3)$, $Q(-4, 9)$, $R(14, -15)$

