

Free Response Practice #25
Calculator NOT Permitted

Point A has coordinates of $(3, 4)$ and point B has coordinates of $(4, -3)$. Answer the following questions.

a. If point C has coordinates $(-4, 3)$, then is $\triangle ABC$ scalene, isosceles or equilateral? Show your work and give a reason for your answer based on that work.

b. Based on your results from part a), determine if $\triangle ABC$ is a right triangle or not. Show your work and give a reason for your answer.

c. The point $(3, k)$ is a point that is equidistant from both point A and point B . Find the possible value(s) of k .