winma+h
Career Infused Capstone Projects

Name:

Community Stakes Final Report

For your final report, you will graph the locations of buildings, parking lots, and roads for the new town complex. Be sure to label the structures, the coordinates of each reference point, and the dimensions of the structures. Finally, categorize the shape of the different structures, understanding that a building may be placed in more than one category.

Question 1

    a. Which route represents the x-axis for the town complex?

    b. Which route represents the y-axis for the town complex?

    c. If a reference marker is 60 feet east of the Route 25 and 150 feet north of Route 42, what are its coordinates on the graph?

Question 2

Drake is learning to position reference markers on a building site and needs your help to understand coordinates. Drake places the first reference marker for a rectangular building at (24, 39). The second reference marker for the building should be placed 15 units due south of the first. Explain how Drake can find the x- and y- coordinates of the second marker without counting ticks on the grid.

Question 3 – Use the data for the police station to complete the following.

COMMUNITY STAKES
Police Station

Southwest corner is 30 feet north of Route 42 and 40 feet East of Route 25, facing Route 42.

The police station plans show that building will be 70 feet long x 100 feet wide, with the shortest side along Route 42.

a. What are the coordinates for the reference markers (corners) for the police station?

b. What are the dimensions of the police station? Identify the axis along which each dimension runs.

c. Draw the police station on the graph.
   - Write the coordinates next to each reference marker.
   - Label the building, "Police Station"

Question 4

a. How did you find the point on the graph for the southwest corner of the police station?

b. Given the southwest corner marker point, how did you find the location of the northwest corner of the police station, using the graph?

Fire Station

Question 5-Use the data for the fire station to complete the following.

COMMUNITY STAKES
Fire Station

The southwest corner of the fire station is 80 feet east of Route 25 and 200 feet north of Route 42. The fire station faces Route 25.

The fire station plans show that the building will be 60 feet wide x 170 feet long, with the longest side along Route 25.

a. What are the coordinates for the reference markers for the fire station?

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b. Choose the correct words to explain what it means for the southwest corner of the fire station to be at *8, 20) on the graph.

The point is _____ ticks _____ from the *x*-axis and _____ ticks _____ of the *y*-axis.

c. Choose the correct words to explain the location of the southwest reference marker for the fire station on the town complex site.