CITY MAP PROJECT

Draw and label the following items on sheet of graph paper. Be sure to label your x & y axis. Show all work on a separate sheet of paper. HIGHLIGHT your final answers. Extend all lines, unless it states otherwise.

1. Main Street runs through the points (-3,0) and (1,-6). Write the equation of this line in slope intercept form.
2. Math Blvd is parallel to Main Street. Math Blvd goes through the point (-4, 16). Write the equation of the line in slope intercept form.
3. Mountain Way has a y-intercept of zero. Mountain Way is perpendicular to Math Blvd. Mountain Way is only in the first quadrant. Write the equation of Mountain Way as a direct variation.
4. Write the equation of Mountain Way in standard form.
5. Euclid Ave has an equation of y – 7 = -1/6 (X – 18). At what coordinates does Euclid Ave intersect Mountain Way?
6. Pythagoras Park is a triangular shaped park made up of the 3 line segments. It’s the intersections of the line x = 5, y = 15, and the line segment between the points (5, 20) and (17, 15). Write the equation of the 3rd side in point – slope form.
7. If the length of each square on the graph paper is 1 ¼ mile, what would the area (in square miles) of Pythagoras Park?
8. Polygon Way starts at (1,-6) and is parallel to Mountain Way. It ends at (-11,-14). What is the equation of the Polygon Way is standard form?
9. Pi Pond is a circle whose center is located a slope of -3/8 away from the end of Polygon Way. When the circle is drawn, it just touches the y-axis. What is the radius?
10. Find the area and circumference of Pi Pond in square miles. Use the same conversion as above.
11. Linear Lane runs through the end of Polygon Way with an undefined slope. What is the equation of this line?
12. Hexagon Run starts at (-12, 7). It is perpendicular to Polygon Way and the road stops at the intersection with Polygon Way. What is the coordinates of this intersection?
13. Write the equation of Hexagon Run in slope intercept form.
14. The city wants to build Integer Drive. The equation of this line is 2x – y = 11. Could the city build this road? Explain why or why not.

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