

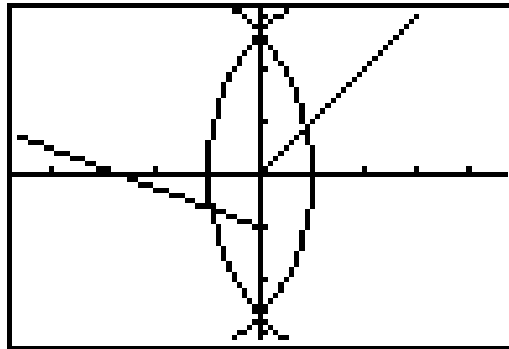
Geometry: Drawing on my TI Algebraic Connections

The goal of this investigation is to help in the development of your spatial skills as they relate to the construction of geometric objects and in the use of the TI-83/82 as a tool for constructing figures. In addition the use of algebraic techniques in the measurement of various geometric properties is an underlying theme.

I. Get the GEOMETRY program on to your TI-83 or TI-82.

II. Place the MODE on your TI into Degrees. Set your WINDOW to represent the four Quadrants x: (-47, 47) y: (-31,31). Use a scale of 10. Turn off all STAT PLOTs and all Y=.

III. Construct the following figure on your TI-83:

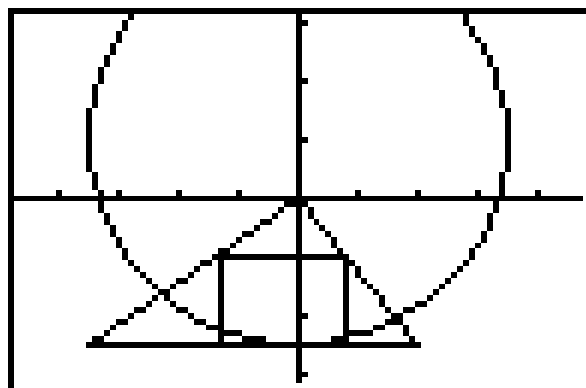


IV. Save your picture as PIC* on your TI.

V. Use each of the following program menu options on at the figure and report the results with appropriate details.

LENGTH (of a line segment);
ARC (along one of the circles);
MIDPOINT (of one of the line segments).

VI. Construct the following figure on your TI:



VII. Save your picture as PIC* on your TI.

VIII. Use each of the following program menu options on at the figure and report the results with appropriate details.

ANGLE;
SLOPE (of one of the sides of the triangle);
TRIANGLE AREA (of one of the triangles); and
ANGLE BISECTOR (of one of the angles in the triangle).

IX. Construct the three types of triangles on your TI (scalene, isosceles, and equilateral). Use the GEOMETRY program to verify that these sketches qualify as the indicated types. Save your picture as PIC* on your TI. Report the results of your measurements.

X. Construct the other three types of triangles on your TI (acute, right, and obtuse). Use the GEOMETRY program to verify that these sketches qualify as the indicated types. Save your picture as PIC* on your TI. Report the results of your measurements.

XI. Open the GEOMETRY program from the Graph Link application, and examine the code. Explain one of the menu options in detail. What calculations are you doing, etc?