## Objectives:

Using the COORDINATE GEOMETRY aplet, the student will find the midpoint, distance, and slope of a given line segment.

## Functionality:

When the student presses START, the

COORDINATE GEOMETRY NOTE will be displayed.

After reading the note, the student should press
SKETCH for further explanation.

VIEWS allows the student to select a new problem and enter the distance, midpoint, or slope of the new line segment.

New Problem will randomly generate a line segment.

Guess Distance will prompt the student to enter the distance of the given line segment.

When the distance is entered, a message box will display the status of the entered information.

Immediately following the message box, the graph will be displayed along with a sketch of the distance in terms of $x$ and $y$. In the diagram to the right, the distance entered was too low.

Guess Midpoint will prompt the student to enter the x and y coordinates for the midpoint.

When the midpoint is entered, a message box will display the status of the entered information.


## Exploring Coordinate Geometry

Immediately following the message box, the graph will be displayed along with the position of the student's guess for the midpoint plotted with an X .


Guess Slope prompts the student to enter the rise and the run of the line segment.


When the slope is entered, a message box will display the status of the entered information.


Immediately following the message box, the graph will be displayed along with the rise and run of the student's guess for the slope.


Programs associated with this aplet:
.DMS.NL, .DMS.DF, .DMS.GM, .DMS.GS, .DMS.ST, .DMS.SV

