**Supplementary Activity**

**Unit 1 Investigation 1**

**Distance between Two Points**

Open the file: <http://tube.geogebra.org/material/simple/id/1510311>

The goal here is to find the distance between any two points in the coordinate plane. This applet was designed to help you discover how this task is possible. Before clicking the "Show Hint" checkbox in the applet below, take a couple of minutes to see if you can figure out a way to calculate the distance between points A & B in the applet.. Points A & B are moveable, by the way. If you're totally stuck after a few minutes, click the "Show Hint" checkbox. What appears should trigger your memory and remind you of a previous important concept you've learned once before.

1. After clicking the "Show Hint" checkbox, describe what you see. What DO you see? And how will this help you find the distance between *A* and *B****?***

1. What previous concept (that you've learned before) did you use in order to calculate the distance between points *A* and *B* in the applet?

1. The **red** segment is the absolute value of the RUN between points *A* and *B*. How can you mathematically calculate the RUN between any 2 points?

1. The **blue** segment is the absolute value of the RISE between points *A* and *B*. How can you mathematically calculate the RISE between any 2 points? Write an equation containing the terms "**RUN**", "**RISE**" and "**DISTANCE**" that expresses the relationship among these 3 terms.