

Geometry
Unit: Introduction to Geometry
Section: Measuring Segments

Example: Length of a Line Segment

Screen 1

In the figure below, find the length of FH. The line segment has points negative 3.2, labeled F, 0, and 4, labeled H.

To find the length of a line segment, subtract one x-coordinate from the other x-coordinate and take the absolute value. We will use the coordinates x_1 and x_2 to designate the coordinates of F and H, respectively. FH equals the absolute value of x_1 minus x_2 .

FH equals the absolute value of negative 3.2 minus 4

FH equals the absolute value of negative 7.2.

FH equals 7.2

Now let's calculate HF. By doing this, we will show that FH is equal to HF, and that order is not important when calculating length. HF equals the absolute value of x_2 minus x_1 .

HF equals the absolute value of 4 minus negative 3.2 equals the absolute value of 4 plus 3.2 equals the absolute value of 7.2 equals 7.2

It is clear that the order of the coordinates doesn't matter when finding the length of a line segment. FH equals HF equals 7.2