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Geometry Exploration Lab

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Topic: 5.1 Identify Corresponding Parts and Translations

1. On a coordinate plane, draw point A at $(1, 3)$ and point B at $(3, 6)$.
 - Draw a line segment between the two points.
 - Measure the length of the line segment. (hint: distance formula)
 - Draw line segment XY with point X at $(3, 2)$ and point Y at $(5, 5)$.
 - Measure the length of line segment XY . How does it compare to AB ?
2. On a coordinate plane, draw a line segment \overline{CD} with points $C(1, 5)$ and $D(4, 2)$.
 - Draw a line segment between points $E(-1, -5)$ and $F(-4, -2)$.
 - What do you notice about the coordinates of \overline{CD} and \overline{EF} ?
 - Measure the lengths of \overline{CD} and \overline{EF} . What do you notice?
3. On a coordinate plane, draw a line segment \overline{GH} with points $G(2, 1)$ and $H(5, 2)$.
 - Draw a line segment \overline{IJ} with points $I(1, 2)$ and $J(2, 5)$.
 - Measure the lengths of \overline{GH} and \overline{IJ} . What do you notice?
4. On a coordinate plane, draw a line segment \overline{KL} with points $K(3, 2)$ and $L(4, 3)$.
 - Make a new line segment \overline{MN} by multiplying each of the coordinates of \overline{KL} by 2.
 - Measure the lengths of \overline{KL} and \overline{MN} . What do you notice?