## Distance Between Two Points

The $\qquad$ states a relationship among the three sides of a $\qquad$ triangle.

The $\qquad$ (c) is the side opposite the right angle and will always be the $\qquad$ side of the triangle. The other two sides ( $a$ and $b$ ) are $\qquad$ .

| Diagram: | Formula: |
| :--- | :--- |
|  |  |

The $\qquad$ is a direct application of the $\qquad$ .

The $\qquad$ between two points is the $\qquad$ of the line segment connecting the two points.

| Diagram: | Formula: |
| :--- | :--- |
|  |  |

## Example:

Use the distance formula to find the length of each side of the triangle.

$A B=$
$B C=$
$A C=$
$\triangle A B C$ is a $\qquad$ triangle!

In this unit, we will be classifying geometric $\qquad$ .
The distance formula is used to determine if two sides (or diagonals) of a polygon are $\qquad$ -.

For example:

- opposite sides of a $\qquad$ are congruent
- all four sides of a $\qquad$ are congruent
- diagonals of a $\qquad$ are congruent

