Unit 7, Lesson 8

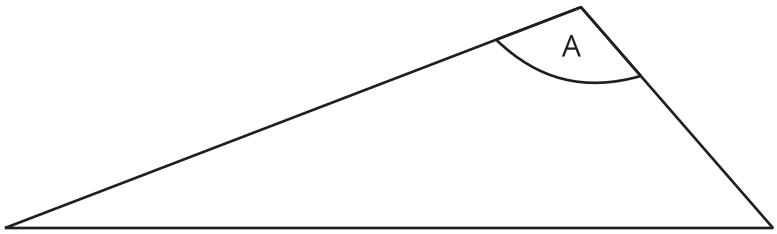
# Sort Triangles

Let's sort triangles.

## Warm-up

### Estimation Exploration: Angle Measure

What is the measure of Angle A?




Record an estimate that is:

| too low | about right | too high |
|---|---|---|
| | | |

Activity 1

## The Right Fit

Your teacher will give you a set of cards that show triangles.

1. Find a card that fits the description for each space in the chart. Record the letter of each triangle in the correct space.
2. If you don't think it's possible to find a triangle that fits a space's descriptions, explain why not.

| | All 3 side lengths are different. | Exactly 2 of the side lengths are equal. | All 3 side lengths are equal. |
|---|---|---|---|
| Has a 90-degree angle. | | | |
| Has an angle that is greater than 90 degrees. | | | |
| All 3 angles are less than 90 degrees. | | | |

Explanations:

Activity 2

## Card Sort: All, Some, None

Your teacher will give you a set of cards that show triangles.

1. Sort the cards into 2 categories of your choosing. Explain the meaning of your categories.

2. Now find all the triangles with a 90-degree angle. Complete the following statements about those triangles.
   - All of the triangles with a 90-degree angle...
   - Some of the triangles with a 90-degree angle...
   - None of the triangles with a 90-degree angle...

## Section B Summary

We sorted and analyzed different kinds of *quadrilaterals* and triangles. We described their properties.

Examples:

- A *rectangle* is a quadrilateral with 4 right angles.
- A *rhombus* is a quadrilateral with 4 equal sides.
- A *square* is a quadrilateral with 4 right angles and 4 equal sides.
- A **trapezoid** is a quadrilateral with at least 1 pair of opposite sides that are parallel.
- A *right triangle* is a triangle with a 90-degree angle.

We also described how the shapes are related to each other.

Examples:

- A square is always a rhombus because all squares have 4 equal sides. But a rhombus is not always a square because some rhombuses do not have 4 right angles.
- A square is always a rectangle because it has 4 right angles. But a rectangle is not always a square because some rectangles do not have 4 equal sides.

