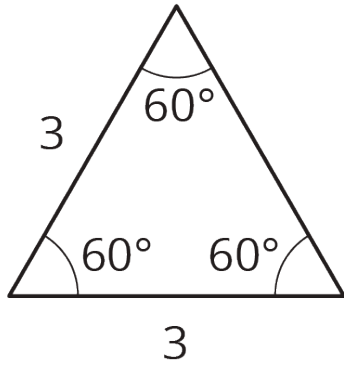# Unit 7 Lesson 9: Drawing Triangles (Part 1)

1 Which One Doesn't Belong: Triangles (Warm up)
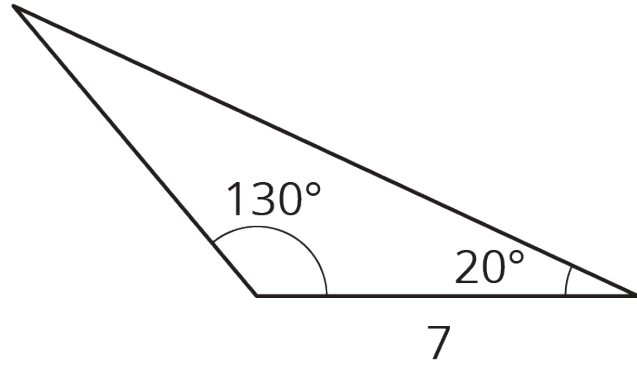
Student Task Statement

Which one doesn't belong?
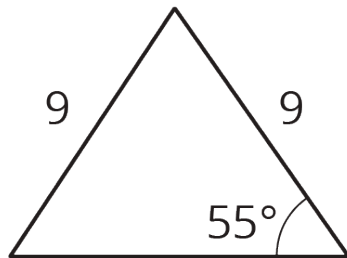
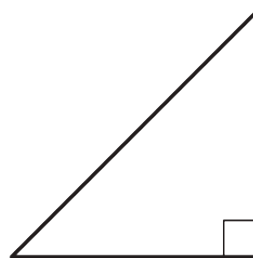A

3
60°
60° 60°
3

B

130°
20°
7

C

9 9
55°

D

2 Does Your Triangle Match Theirs?

Student Task Statement

Three students have each drawn a triangle. For each description:

- Draw a triangle with the given measurements.
- Measure and label the other side lengths and angle measures in your triangle.
- Decide whether the triangle you drew must be an identical copy of the triangle that the student drew. Explain your reasoning.
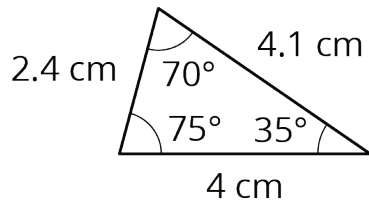
1. Jada's triangle has one angle measuring $75°$.

2. Andre's triangle has one angle measuring $75°$ and one angle measuring $45°$.
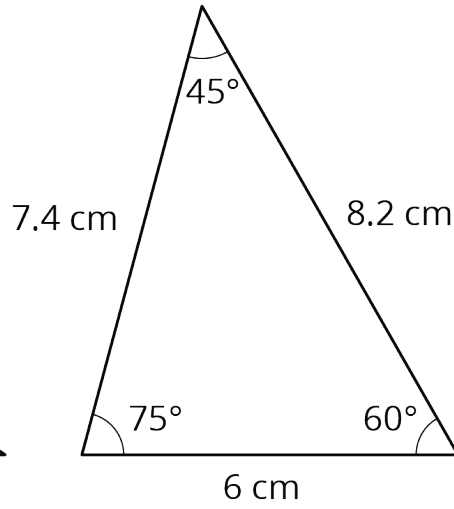
3. Lin's triangle has one angle measuring $75°$, one angle measuring $45°$, and one side measuring 5 cm.
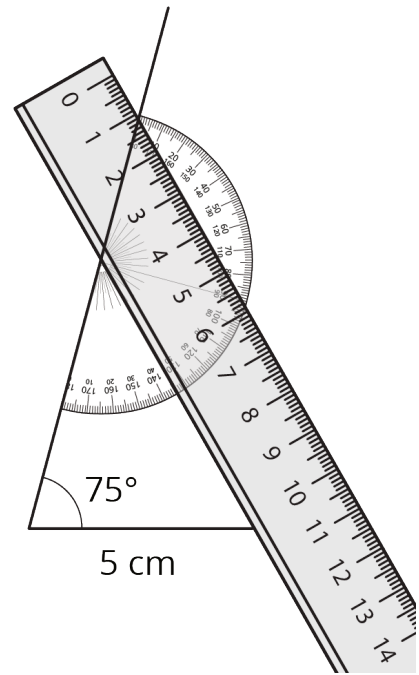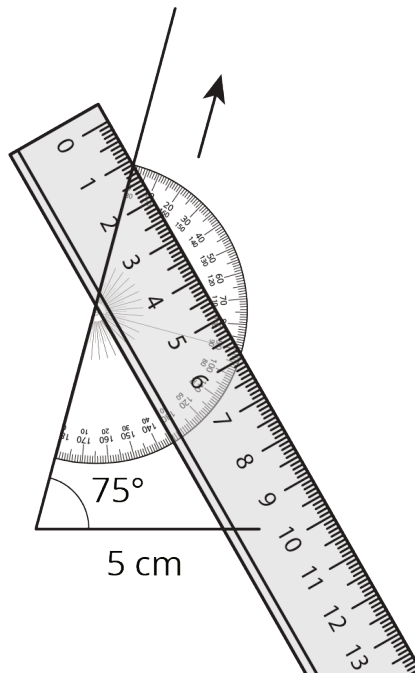
Activity Synthesis

Jada's Triangle

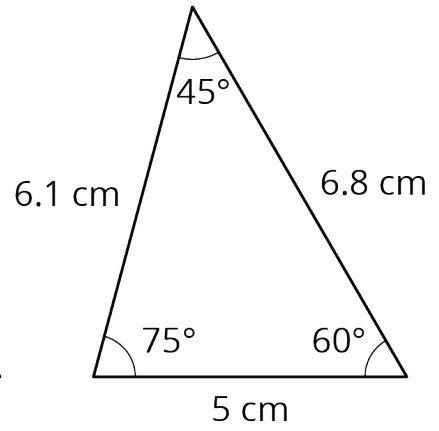Andre's Triangle

Lin's Triangle

2.4 cm
4.1 cm
70°
75° 35°
4 cm

45°
7.4 cm
8.2 cm
75° 60°
6 cm

45°
6.1 cm
6.8 cm
75° 60°
5 cm

75°
5 cm

75°
5 cm

75°
5 cm

3 How Many Can You Draw?

Student Task Statement

1. Draw as many different triangles as you can with each of these sets of measurements:

    a. Two angles measure $60°$, and one side measures 4 cm.

    b. Two angles measure $90°$, and one side measures 4 cm.

    c. One angle measures $60°$, one angle measures $90°$, and one side measures 4 cm.

2. Which of these sets of measurements determine one unique triangle? Explain or show your reasoning.