

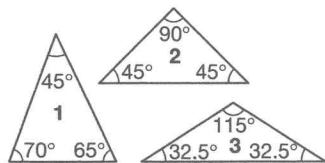
Chapter 7 Lesson 3

Classifying Triangles by Angles

Answers

A. Triangle A is a right-angled triangle, triangle B is an obtuse-angled triangle, and triangle C is an acute-angled triangle.

B.-C. For example,



D. For example, triangle 1 is an acute-angled triangle, triangle 2 is a right-angled triangle, and triangle 3 is an obtuse-angled triangle.

E. For example, as the roofs get steeper, the measures of the peak angles decrease (the angles get smaller).

1. a) For example, I would measure angle A because it looks like a right angle. If it is a right angle, then I know the triangle is a right-angled triangle.
- b) For example, I would measure angle D because it is the greatest angle and it looks like an obtuse angle. If it is, then the triangle is an obtuse-angled triangle.

c) For example, I would measure angle I because it is the largest angle and it looks close to 90° . If it is less than 90° , then I know that the other angles are acute and it is an acute-angled triangle.

2. For example, no. If you measure one angle and it is 90° , then you can classify the triangle as a right-angled triangle. If you can see that all the angles are less than 90° , then you can say it is an acute-angled triangle. If the biggest angle is more than 90° , then you can classify the triangle as an obtuse-angled triangle.

3. a) an obtuse-angled triangle

b) a right-angled triangle

4. a) acute-angled triangle

b) obtuse-angled triangle

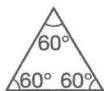
5. a) obtuse-angled triangle

b) acute-angled triangle

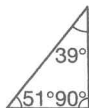
c) right-angled triangle

d) acute-angled triangle

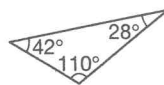
6. a)-c) For example,



acute-angled triangle



right-angled triangle



obtuse-angled triangle

7. a) For example, I agree with Glynis because if a triangle has one right angle, then it is a right-angled triangle. It doesn't matter what the other angle measure are.

b) For example, I don't agree with Martin because all angles have to be acute for a triangle to be an acute-angled triangle.

c) For example, I agree with Jose because if a triangle has one obtuse angle, then it is an obtuse-angled triangle. The other angles will be acute, but the triangle is still an obtuse-angled triangle.