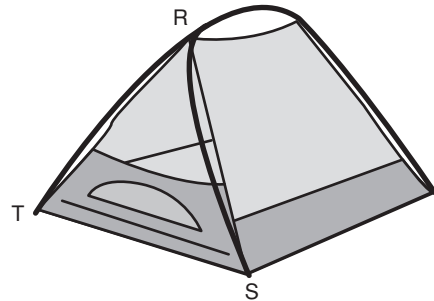
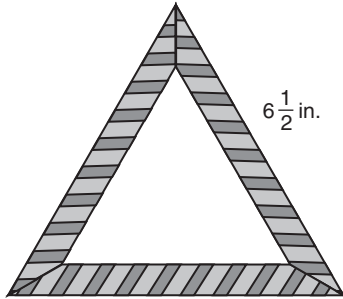


LESSON
4-1

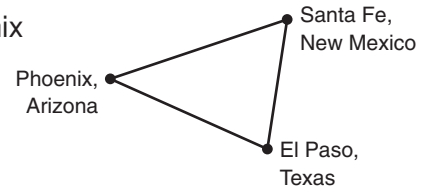
Problem Solving
Classifying Triangles



1. Aisha makes triangular picture frames by gluing three pieces of wood together in the shape of an equilateral triangle and covering the wood with ribbon. Each side of a frame is $6\frac{1}{2}$ inches long. How many frames can she cover with 2 yards of ribbon?
2. A tent's entrance is in the shape of an isosceles triangle in which $\overline{RT} \cong \overline{RS}$. The length of \overline{TS} is 1.2 times the length of a side. The perimeter of the entrance is 14 feet. Find each side length.

Use the figure and the following information for Exercises 3 and 4.

The distance "as the crow flies" between Santa Fe and Phoenix is 609 kilometers. This is 245 kilometers less than twice the distance between Santa Fe and El Paso. Phoenix is 48 kilometers closer to El Paso than it is to Santa Fe.

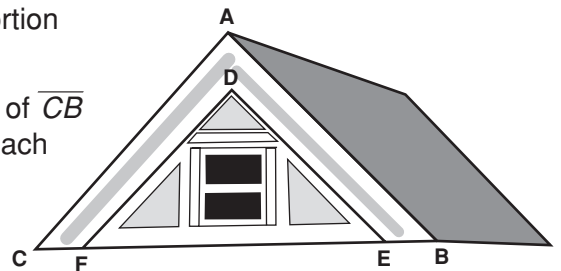


3. What is the distance between each pair of cities?

4. Classify the triangle that connects the cities by its side lengths. _____

Choose the best answer.

A *gable*, as shown in the diagram, is the triangular portion of a wall between a sloping roof.



5. Triangle ABC is an isosceles triangle. The length of \overline{CB} is 12 feet 4 inches and the congruent sides are each $\frac{3}{4}$ this length. What is the perimeter of $\triangle ABC$?

A 31 ft 4 in.	C 21 ft 7 in.
B 30 ft 10 in.	D 18 ft 6 in.
6. In $\triangle DEF$, \overline{DE} and \overline{DF} are each 6 feet 3 inches long. This length is 0.75 times the length of \overline{FE} . What is the perimeter of $\triangle DEF$?

F 12 ft 4 in.	H 17 ft 2 in.
G 14 ft 7 in.	J 20 ft 10 in.