

**Law of Sines and the Ambiguous Case - Independent Practice
Worksheet**

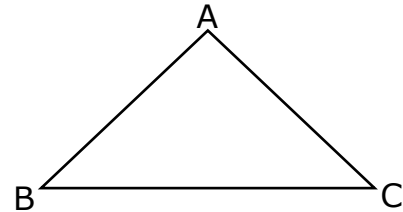
Complete all the problems.

1. From the Diagram solve the following:

$$m\angle A = 34^\circ$$

$$a = 9$$

$$c = 6$$



How many distinct triangles can be drawn given these measurements?

2. In $\triangle ABC$, $a = 19$, $b = 15$, and $m\angle A = 50^\circ$. How many distinct triangles can be drawn given these measurements?

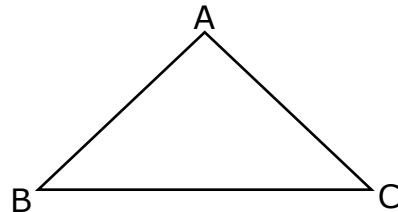
3. In $\triangle ABC$, $a = 35$, $c = 25$, and $m\angle A = 60^\circ$. How many distinct triangles can be drawn given these measurements?

4. From the Diagram solve the following:

$$m\angle A = 55^\circ$$

$$a = 13$$

$$c = 12$$



How many distinct triangles can be drawn given these measurements?

5. In $\triangle ABC$, $a = 8$, $b = 16$, and $m\angle A = 70^\circ$. How many distinct triangles can be drawn given these measurements?



Name _____

Date _____

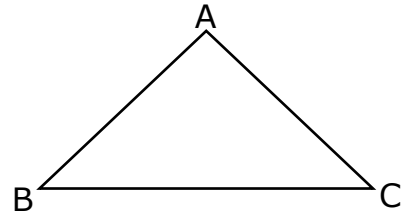
6. In $\triangle ABC$, $a = 35$, $b = 48$, and $m\angle A = 80^\circ$. How many distinct triangles can be drawn given these measurements?

7. From the Diagram solve the following:

$$m\angle A = 44^\circ$$

$$a = 10$$

$$c = 16$$



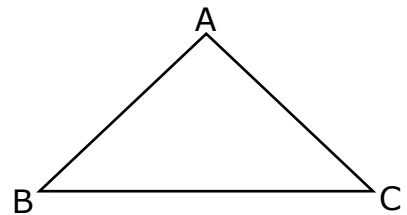
How many distinct triangles can be drawn given these measurements?

8. From the Diagram solve the following:

$$m\angle A = 54^\circ$$

$$a = 14$$

$$c = 7$$



How many distinct triangles can be drawn given these measurements?

9. In $\triangle ABC$, $a = 22$, $b = 36$, and $m\angle A = 56^\circ$. How many distinct triangles can be drawn given these measurements?

10. In $\triangle ABC$, $a = 32$, $b = 44$, and $m\angle A = 68^\circ$. How many distinct triangles can be drawn given these measurements?

