

Law of Sines and the Ambiguous Case - Matching Worksheet

Write the letter of the answer that matches the problem.

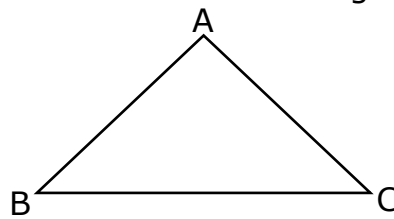
_____ 1. In $\triangle ABC$, $a = 6$, $b = 8$, and $m\angle A = 20^\circ$. How many distinct triangles can be drawn given these measurements?

a. No Triangle

_____ 2. In $\triangle ABC$, $a = 11$, $b = 16$, and $m\angle A = 50^\circ$. How many distinct triangles can be drawn given these measurements?

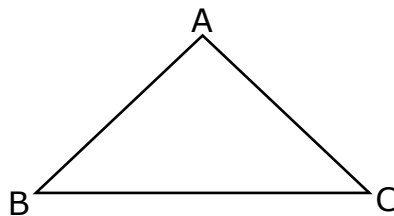
b. $m\angle A = 20^\circ$,
 $m\angle B = 26.74^\circ$, $m\angle C = 133.26^\circ$.
One Triangle.

_____ 3. From the Diagram solve the following:
 $m\angle A = 62^\circ$
 $a = 14$
 $c = 16$



c. $m\angle A = 20^\circ$,
 $m\angle B = 23.57^\circ$, $m\angle C = 136.43^\circ$.
One Triangle.

_____ 4. From the Diagram solve the following:
 $m\angle A = 78^\circ$
 $a = 25$
 $c = 35$

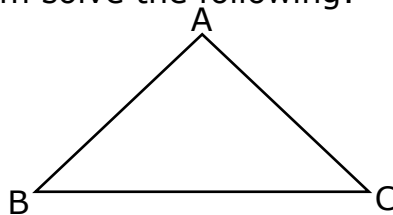


d. $m\angle A = 24^\circ$,
 $m\angle B = 144.47^\circ$, $m\angle C = 11.53^\circ$. One
Triangle.

_____ 5. In $\triangle ABC$, $a = 4$, $b = 6$, and $m\angle A = 20^\circ$. How many distinct triangles can be drawn given these measurements?

e. No Triangle

_____ 6. From the Diagram solve the following:
 $m\angle A = 24^\circ$
 $a = 18$
 $c = 9$



f. $m\angle A = 62^\circ$,
 $m\angle B = 53.85^\circ$, $m\angle C = 64.15^\circ$. One
Triangle.

