

NAME: _____

1. 060901ge, P.I. G.G.30

Juliann plans on drawing $\triangle ABC$, where the measure of $\angle A$ can range from 50° to 60° and the measure of $\angle B$ can range from 90° to 100° . Given these conditions, what is the correct range of measures possible for $\angle C$?

- [A] 120° to 130° [B] 20° to 40°
[C] 80° to 90° [D] 30° to 50°

2. 060909ge, P.I. G.G.30

In an equilateral triangle, what is the difference between the sum of the exterior angles and the sum of the interior angles?

- [A] 180° [B] 90° [C] 60° [D] 120°

3. 080933ge, P.I. G.G.30

The degree measures of the angles of $\triangle ABC$ are represented by x , $3x$, and $5x - 54$. Find the value of x .

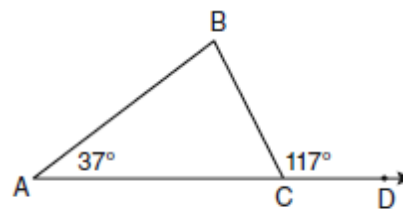
4. 060911ge, P.I. G.G.34

In $\triangle ABC$, $m\angle A = 95$, $m\angle B = 50$, and $m\angle C = 35$. Which expression correctly relates the lengths of the sides of this triangle?

- [A] $BC < AC < AB$ [B] $AC < BC < AB$
[C] $AB < AC < BC$ [D] $AB < BC < CA$

5. 080934ge, P.I. G.G.34

In the diagram below of $\triangle ABC$ with side \overline{AC} extended through D , $m\angle A = 37$ and $m\angle BCD = 117$. Which side of $\triangle ABC$ is the longest side? Justify your answer.



(Not drawn to scale)

[1] B _____

[2] A _____

[2] 26, and appropriate work is shown.

[1] Appropriate work is shown, but one computational error is made.

or [1] Appropriate work is shown, but one conceptual error is made.

or [1] $x + 3x + 5x - 54 = 180$ or an equivalent equation, but no further correct work is shown.

or [1] 26, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[3] incorrect procedure. _____

[4] C _____

[2] \overline{AC} , and an appropriate justification is given, and appropriate work is shown, such as a correctly labeled diagram.

[1] Appropriate work is shown, but one computational error is made.

or [1] Appropriate work is shown, but one conceptual error is made.

or [1] All angle measures are identified correctly, but no further correct work is shown.

or [1] \overline{AC} , but no work is shown, and no justification is given.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[5] incorrect procedure. _____