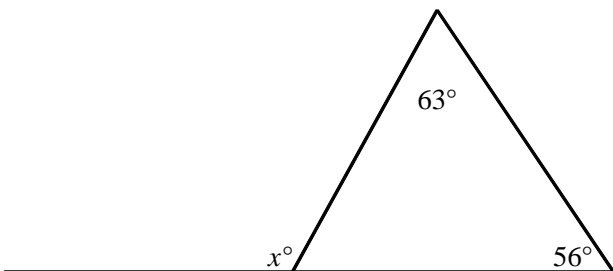


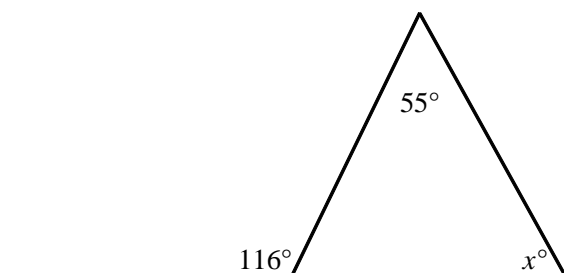
NAME: _____

P.I. G.G.32: Investigate, justify, and apply theorems about geometric inequalities, using the exterior angle theorem

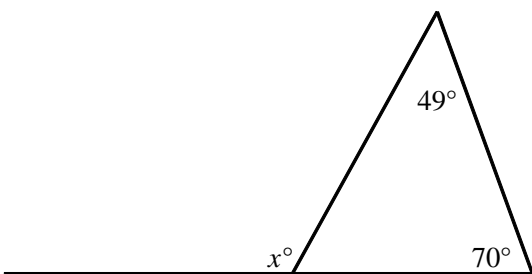
1. Find the value of x .



2. Find the value of x .

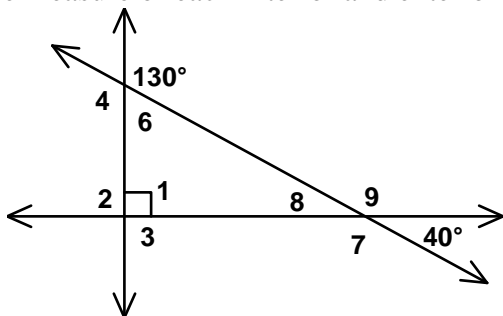


3. Find the value of x .

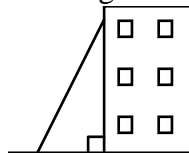


NAME: _____

4. Find the measure of each interior and exterior angle.



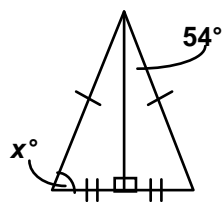
5. A ladder is against a building. The angle it makes with the ground is twice the angle it makes with the building. How large is the exterior angle formed between the ground and the ladder?



6. Compare the quantity in Column A with the quantity in Column B.

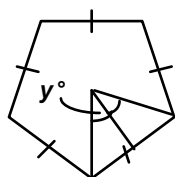
Column A

x



Column B

y



[A] The quantity in Column A is greater.

[B] The quantity in Column B is greater.

[C] The quantities are equal.

[D] The relationship cannot be determined on the basis of the information supplied.

[1] 119

[2] 61

[3] 119

[4] $m\angle 1 = m\angle 2 = m\angle 3 = 90$, $m\angle 4 = 130$, $m\angle 6 = 50$, $m\angle 7 = 140$, $m\angle 8 = 40$, $m\angle 9 = 140$

[5] 120°

[6] C