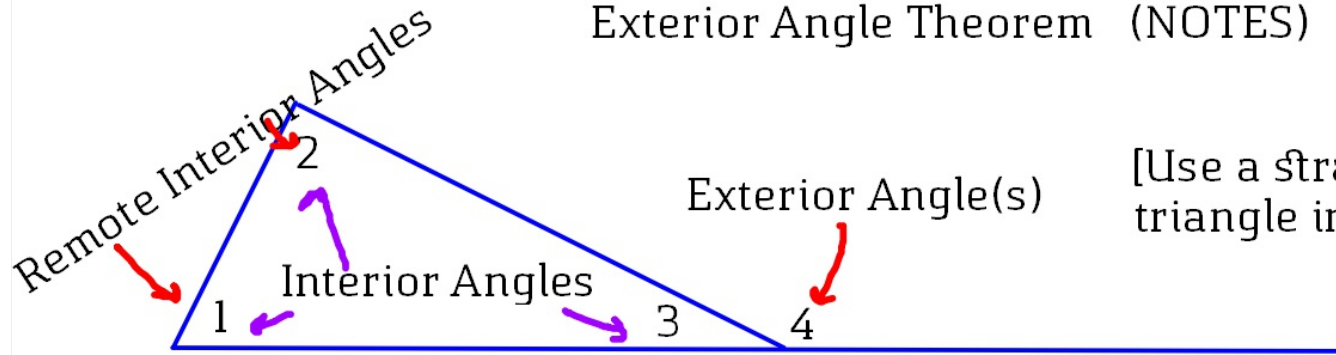
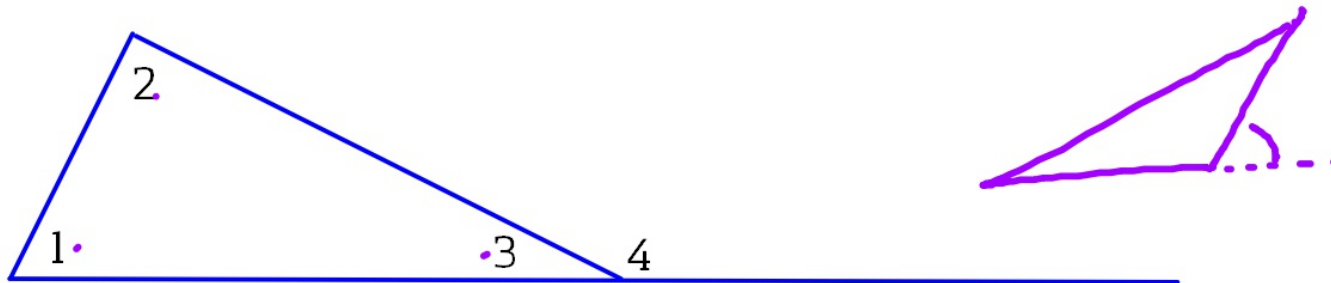


Exterior Angle Theorem (NOTES)



[Use a straight edge to make a triangle in your notes]

Exterior Angle Theorem (NOTES)



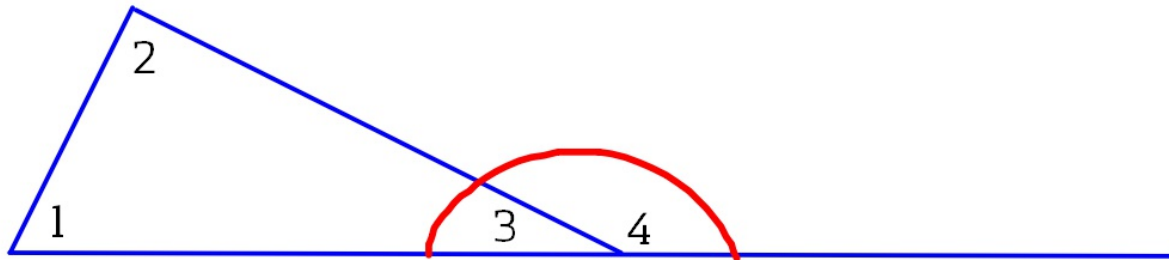
Use a protractor to measure, then record the angle measures.
Make a conjecture about $\angle 4$'s relationship to some other angles.

Angle	Degrees
1	65°
2	90°
3	25°
4	155°

What appears to be true about $\angle 4$?

Angle 4 seems to be the sum of 1 and 2.

Is it always true? Prove it!



$$\angle 1 + \angle 2 + \angle 3 = 180^\circ$$

$$\angle 3 + \angle 4 = 180^\circ$$

$$\begin{array}{r} \angle 1 + \angle 2 + \cancel{\angle 3} = \cancel{\angle 3} + \angle 4 \\ \quad \underline{-\cancel{\angle 3}} \quad \underline{-\cancel{\angle 3}} \end{array}$$

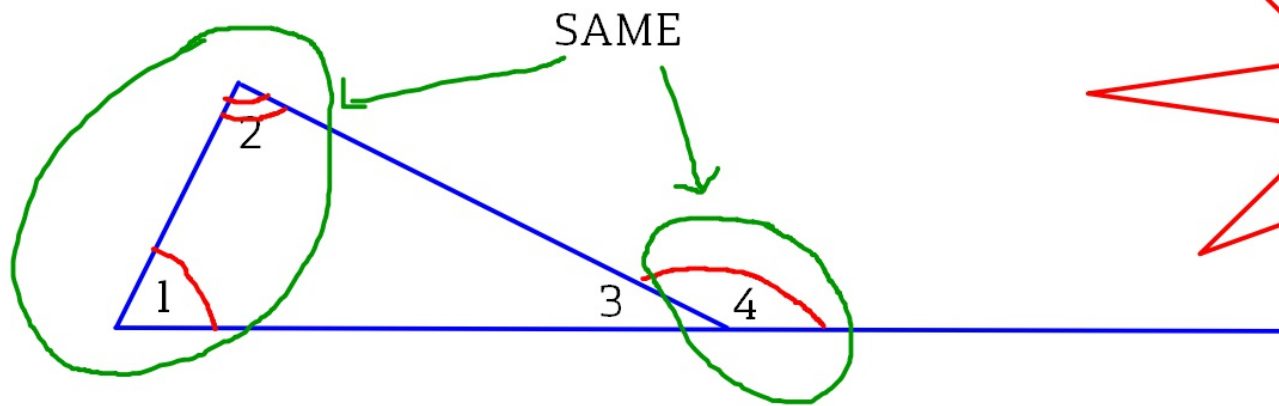
$$\angle 1 + \angle 2 = \angle 4$$

(Δ 's m \angle s = 180 $^\circ$)

(linear pair)

(substitution)

(subtraction)



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Exterior Angle Theorem

The measure of an exterior angle of a triangle is equal to the sum of the measures of two remote interior angles