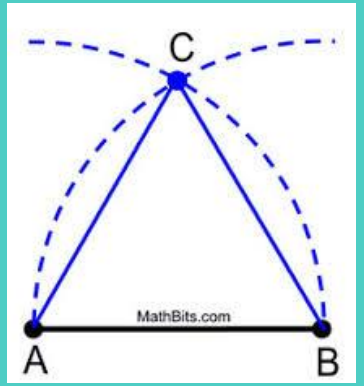
Lesson 4: Construction Techniques 2: Equilateral Triangles



Lesson Summary

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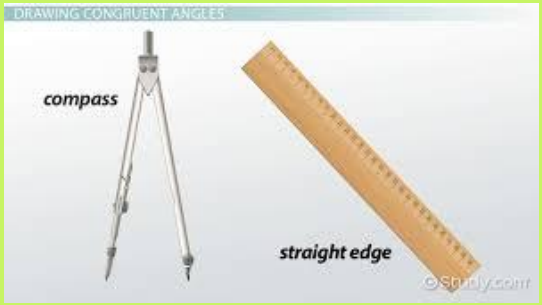
Construction Tools:

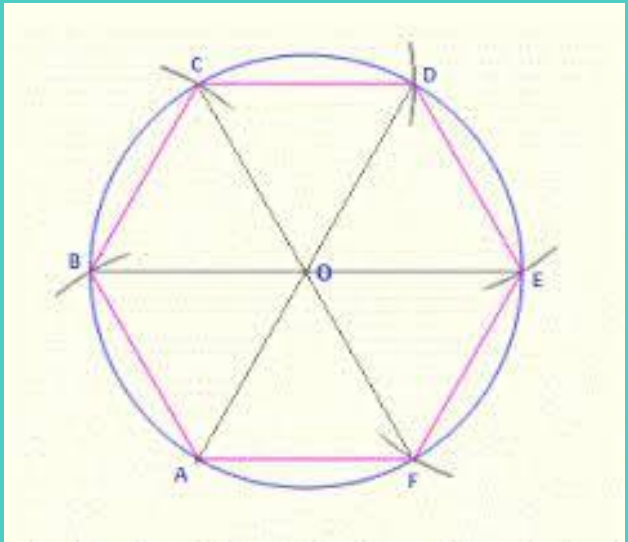
*The straightedge allows us to construct lines and line segments.



With these tools, we can reason about distances to explain why certain shapes have certain properties.

*The compass allows us to make circles with a specific radius.

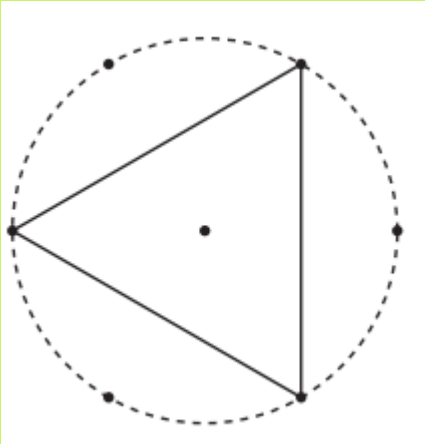
Let's look at an inscribed hexagon:



When we construct a regular hexagon using circles of the same radius, we know all the sides have the same length because all the circles are the same size.

The hexagon is called **inscribed** because it fits inside the circle and every vertex of the hexagon is on the circle.

Let's look at an inscribed triangle:



If we connect every other point around the center circle, it forms an **equilateral triangle.**

We can conjecture that this triangle has 3 congruent sides and 3 congruent angles because the entire construction seems to stay exactly the same whenever it is rotated ⅓ of a full turn around the center.