

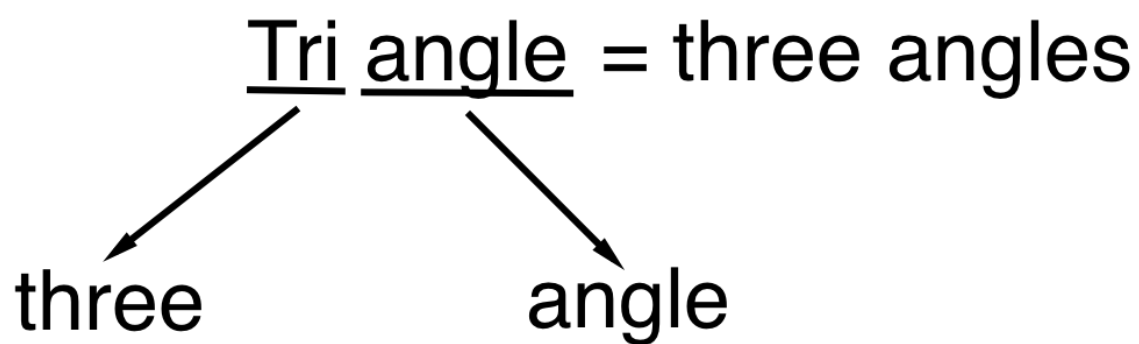
Math Circles - Geometrical Objects on The Plane

What can you make with 0 stick?

What can you make with 1 stick?

What can you make with 2 sticks?

What can you make with 3 sticks?

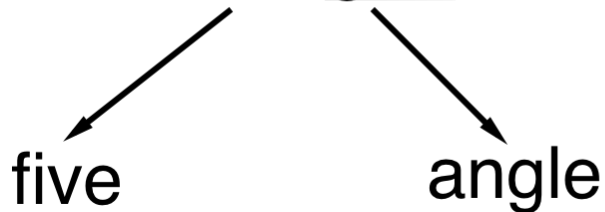


Quadri lateral = four sides



Can you make a quadrilateral?

Penta gon = five angles



Can you make a pentagon?

Hexa = six

Can you make a hexagon?

Hepta = seven

Can you make a heptagon?

Octa = eight

Can you make an octagon?

Equi lateral = same sides

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graph TD; A["Equi lateral = same sides"] --> B[same]; A --> C[lateral]; C --> D[side];
```

Let's make an equilateral triangle.

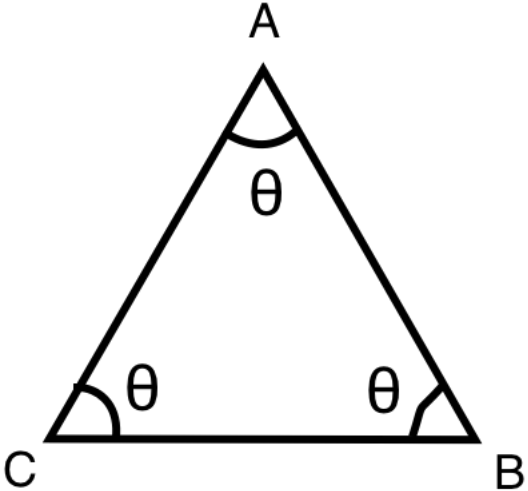
Equi angular = same angles

```
graph TD; A["Equi angular = same angles"] --> B[same]; A --> C[angular]; C --> D[angle];
```

Let's make an equiangular triangle.

The sum of all the angles in a triangle is 180°

Find θ

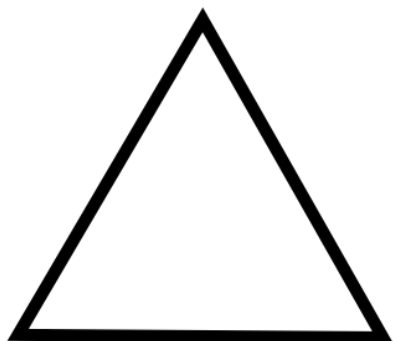
	$\theta + \theta + \theta = 180^\circ$ <p style="text-align: center;">So $\theta =$</p>
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$$\angle BAC =$$

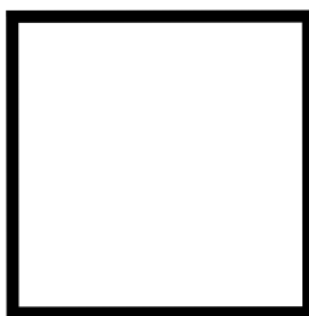
$$\angle ABC =$$

$$\angle ACB =$$

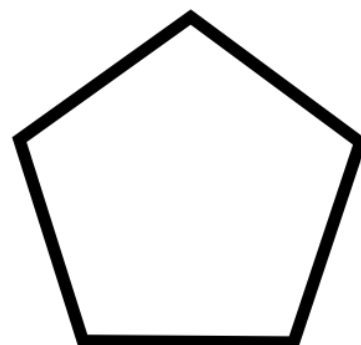
Example of Simple Polygons



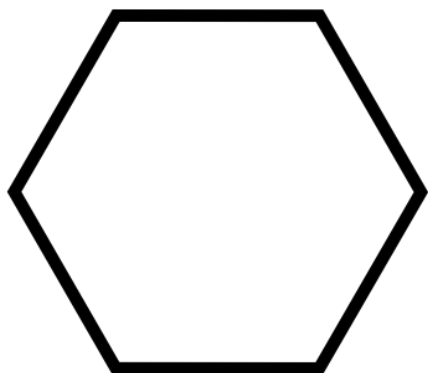
$n = 3$ (simplest)
triangle



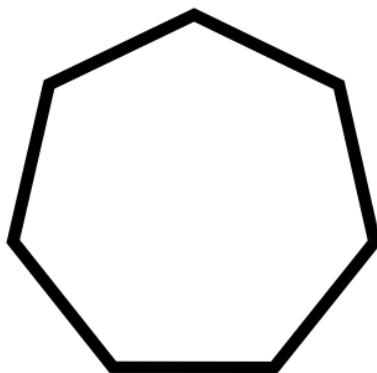
$n = 4$
quadrilateral



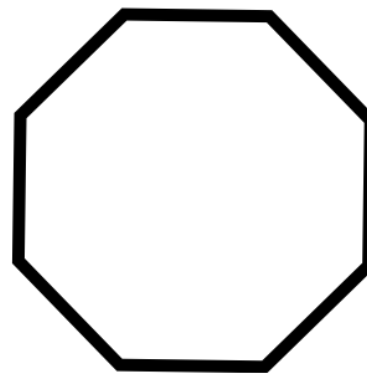
$n = 5$
pentagon



$n = 6$
hexagon



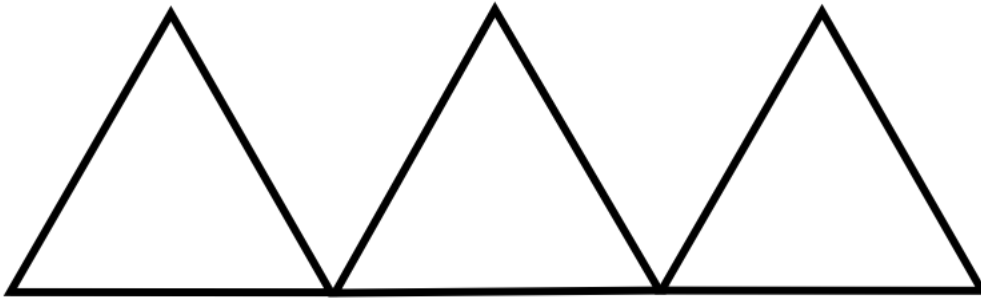
$n = 7$
heptagon



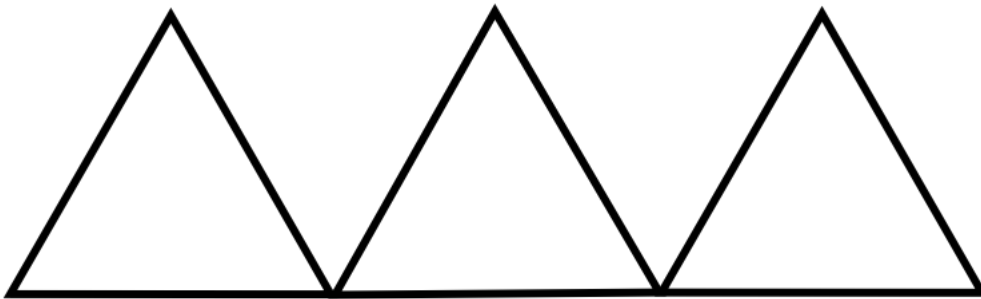
$n = 8$
octagon

Homework

1. Move 2 sticks to make 4 triangles.



2. Move 3 sticks to make 4 triangles



3. What is θ ?

