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Facts and Reminders

Degrees in a Circle

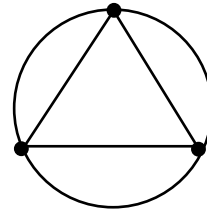
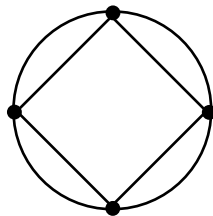
There are 360° in every circle—regardless of the size of the circle. This is a particularly useful number for working with circles because it has so many factors and is therefore divisible by so many numbers. (*Note:* Every counting number between 1 and 10 divides evenly into 360 except 7.)

Factors of 360

$$\begin{array}{ccccc} \begin{array}{c} 360 \\ \diagdown \quad \diagup \\ 2 \quad 180 \end{array} & \begin{array}{c} 360 \\ \diagdown \quad \diagup \\ 3 \quad 120 \end{array} & \begin{array}{c} 360 \\ \diagdown \quad \diagup \\ 4 \quad 90 \end{array} & \begin{array}{c} 360 \\ \diagdown \quad \diagup \\ 5 \quad 72 \end{array} & \begin{array}{c} 360 \\ \diagdown \quad \diagup \\ 6 \quad 60 \end{array} \\ \\ \begin{array}{c} 360 \\ \diagdown \quad \diagup \\ 8 \quad 45 \end{array} & \begin{array}{c} 360 \\ \diagdown \quad \diagup \\ 9 \quad 40 \end{array} & \begin{array}{c} 360 \\ \diagdown \quad \diagup \\ 10 \quad 36 \end{array} & \begin{array}{c} 360 \\ \diagdown \quad \diagup \\ 12 \quad 30 \end{array} & \begin{array}{c} 360 \\ \diagdown \quad \diagup \\ 15 \quad 24 \end{array} \end{array}$$

Inscribing Geometric Figures Within Circles

A circle divided into four equal parts can be inscribed with a square. In addition, a circle divided into three equal parts can be inscribed with an equilateral triangle. Look at the examples below.



Dividing Circles with a Protractor

Use a protractor to divide any circle into equal parts in the following way:

1. Mark one dot anywhere on the circumference of the circle.
2. Draw a radius from the center of the circle to this dot.
3. Place the hole at the center of the protractor directly over the center of the circle.
4. Line up the bottom line of the protractor with the radius you drew.
5. Determine the number of degrees you are going to mark off. (This will depend on the number of equal parts into which you want to divide the circle.)
6. Mark the degrees on the circle in line with the degree marks on the protractor. (If the circle is smaller than the protractor, mark the degrees above the circle and then line up the center dot and the degree mark to draw a radius.)

