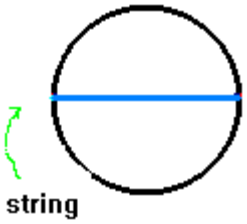
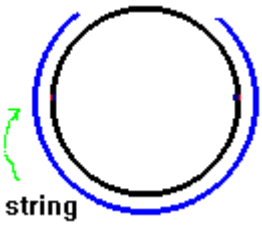
Find Circumference

If you understand the relationship between the diameter of the circle and its circumference, choosing the correct formula will be easier.



The string is stretched across the circle so that it touches the center point. The length of the string is equal to the diameter of the circle.



The string can be used to show the distance around, or circumference of the circle. It takes 3 string lengths plus a little more to equal the circumference. The extra that it needs is about 14/100 or 0.14 of the string length.

The ratio of 3.14 diameters to 1 circumference is called pi. The symbol used to show the relationship is the Greek letter π. The relationship applies to all circles. If the length of a diameter or radius is given as a mixed number, it may be more convenient to

Use $\frac{22}{7}$ rather than 3.14.

So, the formula for the circumference of a circle is C = πd. Read the formula as
"Circumference equals pi times the length of a diameter."

Since a diameter is equal to two radii (the plural of radius), the formula can also be written C = 2πr or

"Circumference equals two times pi times the length of a radius."

Examples:

A- Estimate the circumference of the circles.

1) Diameter = 24 cm
c = π x d = 3.14 x 24
c = 75.36 cm

2) Ray = 6 m **(Diameter = 2 Rays)**
c = π x d = 3.14 x 2 x r
c = 3.14 x 2 x 6 = 3.14 x 12
c = 37.68 m