

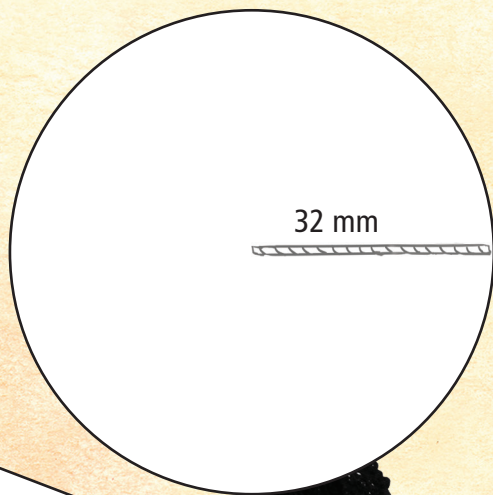
# Plato's protractor™ IV

## Measuring angle in both quips and radians

Using arc length to measure angles in radians.



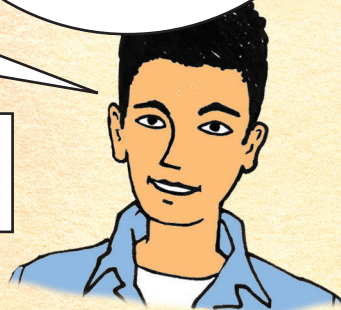
This circle has a radius equal to the length of string you used to mark the 15 arc lengths on your quip protractor.



How many times does the length of the string you used to make the quips protractor fit around the circumference of this circle, without gaps or overlaps?

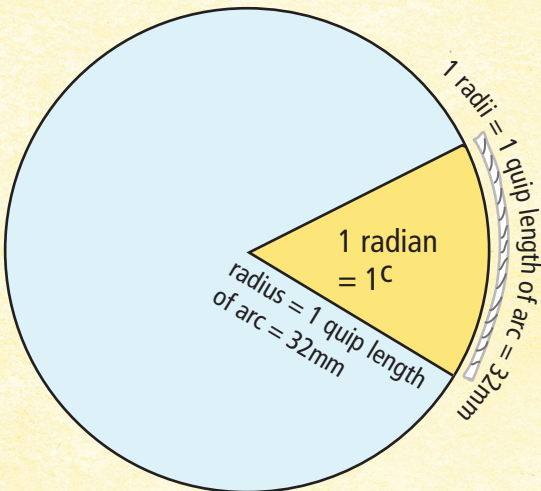
Number of whole string lengths around circumference

Answers on the Explorer manual support site.

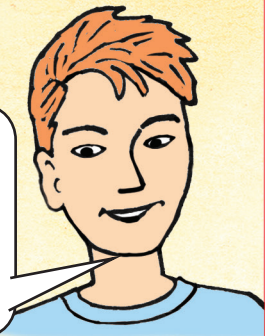


Each string length is one radius long. The angle that cuts it off is called a radian.

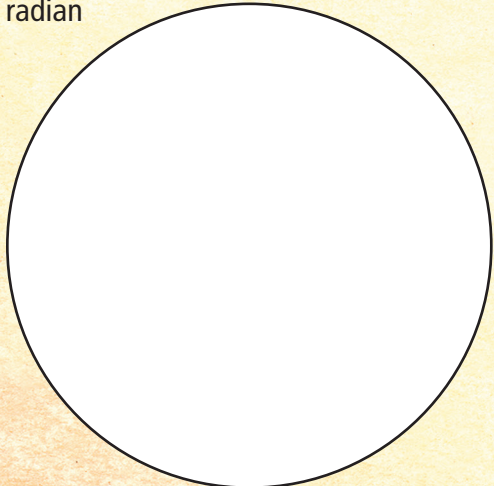
We know from doing the pi experiment earlier in the Explorer manual that there are  $2\pi$ , or about 6.28 radii around the circumference.



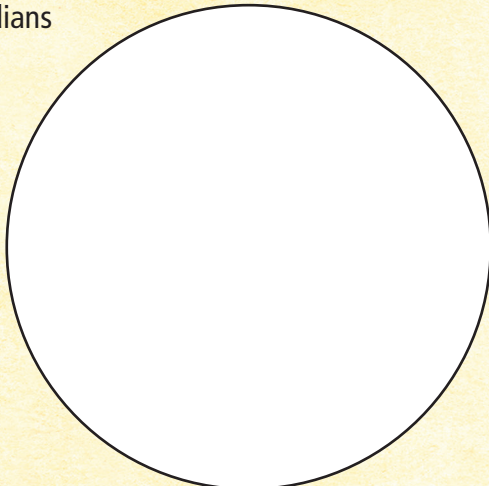
With the string that you used to make your quip protractor mark and draw angles for 1.5 radians and  $\pi$  radians in these two circles below.



1.5 radian



$\pi$  radians



Answers in the Explorer manual support site.

More about MATHOMAT: Radians