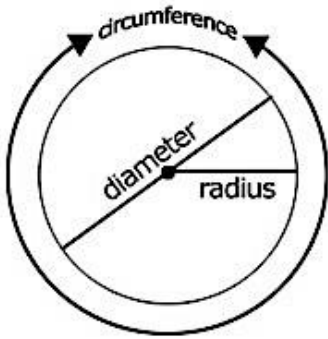


**Measurement: Circumference and circular area**

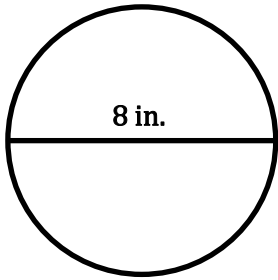
Circumference:

Pi: The ratio of a circle's circumference to its diameter.

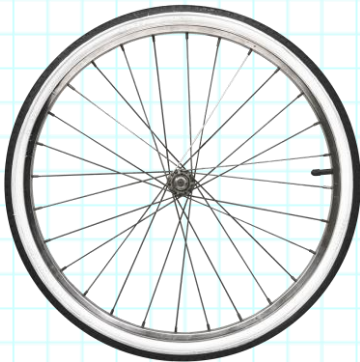
Pi  $\approx$

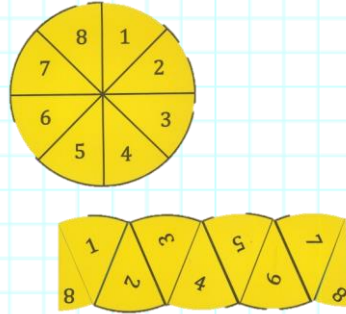
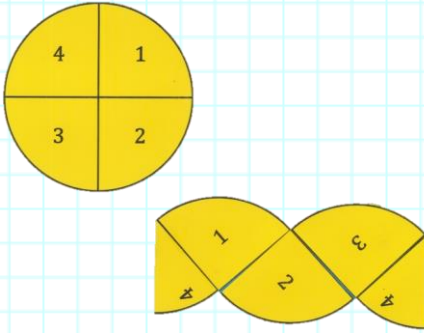
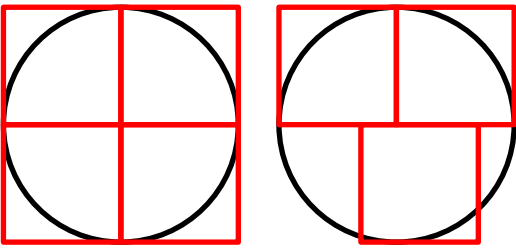
If you are doing a rough estimate you can use Pi  $\approx$

Find the circumference of this circle using a) a rough estimate, b) a more precise estimate, c) an exact calculation:



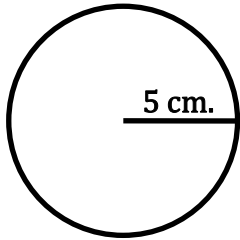
When the bike tire below makes one complete rotation, the bike moves forward 78 inches. Do a rough estimate to determine the approximate length of one of the tire's spokes.





Area of a Circle:

Estimate the area of this circle



This artwork has a diameter of 15 inches. What is the area of this artwork in terms of  $\pi$  ?

