

Title of Book: Sir Cumference and the Dragon of Pi
Author: Cindy Neuschwander

Publisher: Charlesbridge Publishing Co./ 1999

ISBN: 1-57091-164-9

Grade Levels for Recommended Use: Sixth Grade
TEKS 6.6 (C) describe the relationship between radius, diameter, and circumference of a circle

Brief Summary: Sir Cumference, Lady Di of Ameter, and Radius, their son, are involved in medieval adventure. A potion has changed Sir Cumference into a fire-breathing dragon. Join Radius on his quest through the castle to solve a riddle that will reveal the cure. It lies in discovering the magic number that is the same for all circles.

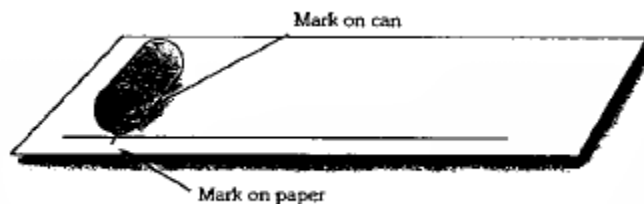
Suggested Activity:

Engage: Read the book orally, but do not read the pages after “The Circle’s Measure” on page 13. Write the riddle on the overhead, reading it again and giving the students time to think about it. Their challenge for the day is to solve the riddle and help Radius get his father back. Teacher should model procedure for the first can.

Explore:

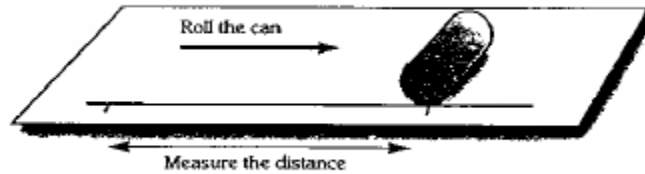
It is easy to find the length of the diameter of a circle by drawing a line through the center. Do this project to discover another way to find the diameter.

1. Get four cans of different sizes from you teacher. Three of the cans (labeled “#1” “#2” and “#3”) will have diameters drawn on the tops.
2. Draw a straight line on a piece of paper with a meter stick. With can #1, make a mark somewhere on the edge of the top of the can. Lay the can down on the paper with the mark on the line. Make a mark on the line next to the mark on the top of the can.



3. Roll the can so that its top travels straight down the line along the meter stick. Stop when the mark on the can has rolled all the way around to the

bottom again. Make another mark on the line at that point. Measure the distance on the line between the two marks.



4. Measure the length of the diameter of the can. Put the information you have into the chart on this page. Compute the quotient of rolling distance divided by the diameter.
5. Repeat this activity with the other two cans that have diameters drawn on them.
6. What pattern do you notice?
7. Measure the rolling distance for can #4. Use the pattern to find its diameter.

	Rolling distance	Diameter	Quotient of rolling distance divided by diameter
Can #1			
Can #2			
Can #3			
Can #4			

Adapted by Dr. Faye Bruun (2018)