

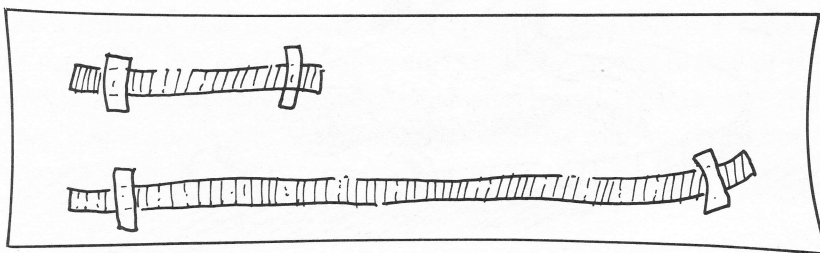
Lid Ratios

Why

To develop understanding of the concept of π , or the relationship between the circumference of a circle and its diameter

How

- ☐ Pick out a lid to measure.
- ☐ Cut a ribbon or string that measures around the lid exactly (the circumference).
- ☐ Cut a ribbon or string that measures across the center of the lid (the diameter).
- ☐ Tape your circumference and diameter ribbons onto a large sheet of paper.
- ☐ Cut ribbons to measure the circumferences and diameters of several more lids.
- ☐ Tape these ribbons on your record paper.



- ☐ Study the circumference and diameter ribbons for the lids.
- ☐ About how many times longer is the circumference ribbon than the diameter ribbon?
- ☐ How many diameter ribbons would fit along the circumference ribbon?

► The formula for calculating the circumference is

$$\text{Circumference} = \pi \times \text{Diameter}$$

or

$$\text{Circumference} = 2 \times \pi \times \text{Radius.}$$

$$C = \pi d$$

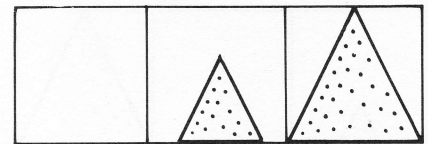
or

$$C = 2\pi r$$

The pi ratio of about 3.1416 is the same for every circle. ◀

More Ideas

Measure the exact lengths of the circumference and diameter ribbons for each lid. Use a calculator to find the ratio $\frac{\text{circumference}}{\text{diameter}}$ for each lid. Is there a pattern?



Grade Level

TOOLS

Circular lids

Ribbon or string

Scissors

Large sheet of paper

Pen or pencil

