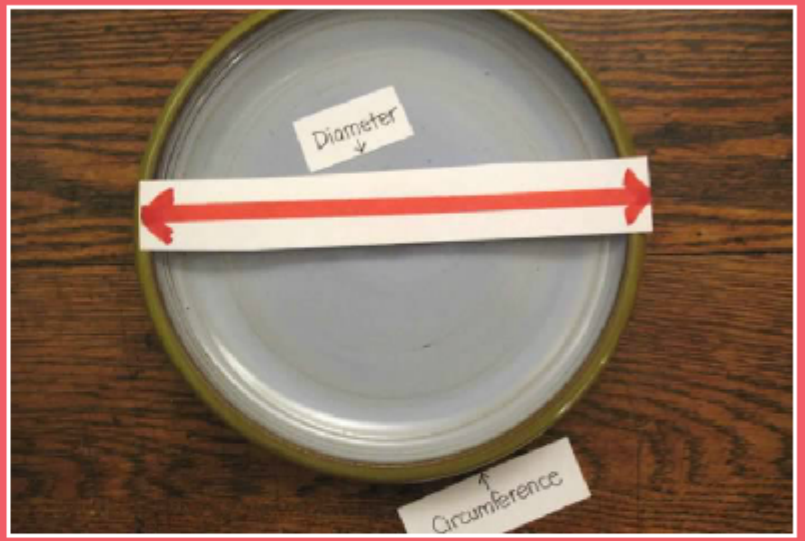
Ashley and Kathy Discover Pi

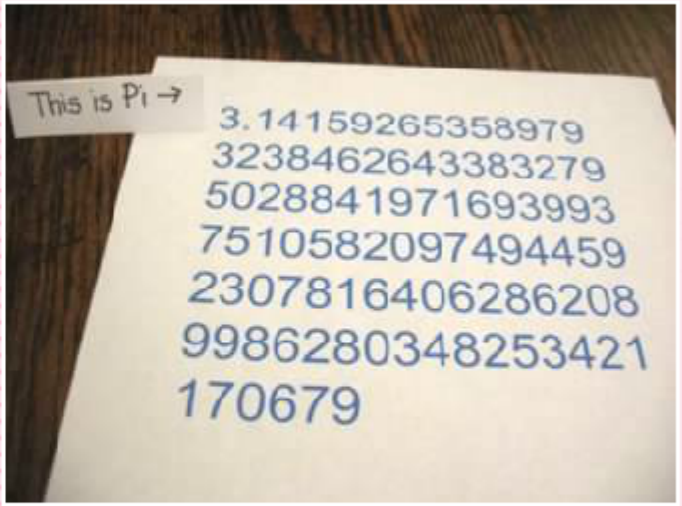


Ashley and Kathy Discover Pi

by Kathy Kinsner

For Ashley Mitchell, with love and best wishes for all the exciting math discoveries to come.

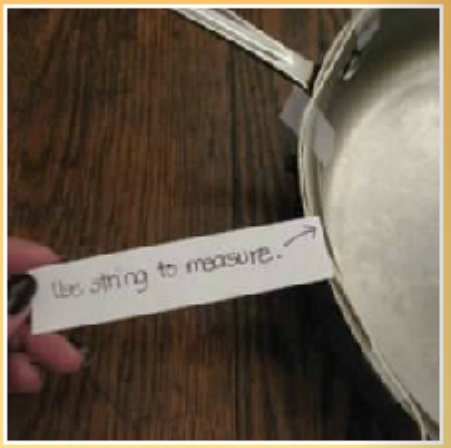
Today, Ashley and Kathy discovered Pi. Not the eating kind, though we really like that.



The math kind.

We knew there was an equation that uses the diameter of a circle to figure out its circumference. We knew it had something to do with Pi. But we couldn't remember anything else.

Josh knew, but he wasn't telling.



We measured a frying pan. We used a T-square to measure the diameter, and a piece of string to measure the circumference.
d = 11 inches c = about 35 inches

Kathy's calculations made no sense.

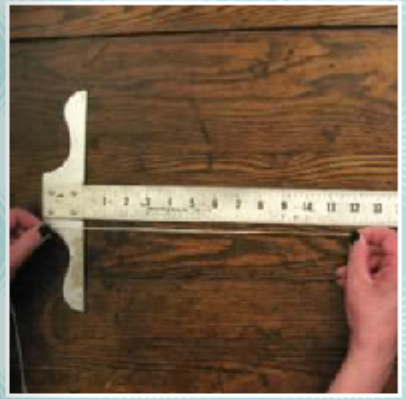
We tried a new strategy. We divided the circumference of the pan by its diameter. We got Pi (or a number really close to Pi).

Could we use the diameters of other circles to find their circumferences?

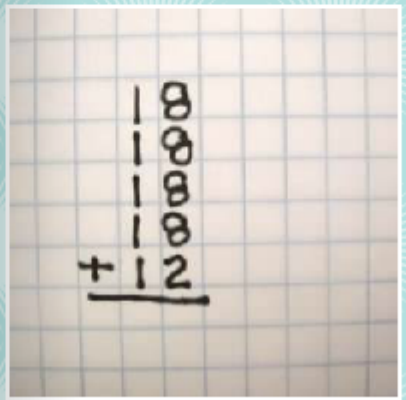
Next, we measured Josh's bike wheel. The radius was 13.5 (13 1/2 inches). Our T-square was too short, so we added two radii to get the diameter.
13.5 inches + 13.5 inches = 27 inches

We multiplied 27 inches times Pi. 27 inches x 3.14 = almost 85 inches
Were our calculations correct? Ashley carefully taped the string around the wheel to find out. Would the circumference equal 85 inches?

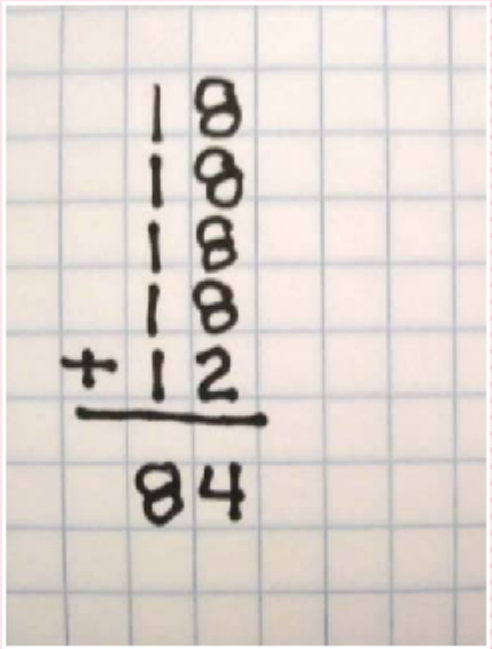
The string was taller than Kathy, who is 5 feet, 6 inches (66 inches) tall. Did our equation work?



We used the T-square to measure the string.



Ashley's calculations looked like this.



84 inches.
So close!
Our equation
worked.

We tried one more circle.
3 inches x 3.14 = about 9 1/2 inches

About 10 inches! We were very excited.

Our equation worked for every circle we measured.

In the other room, Josh smiled to himself.

And Tilda missed the whole experiment.