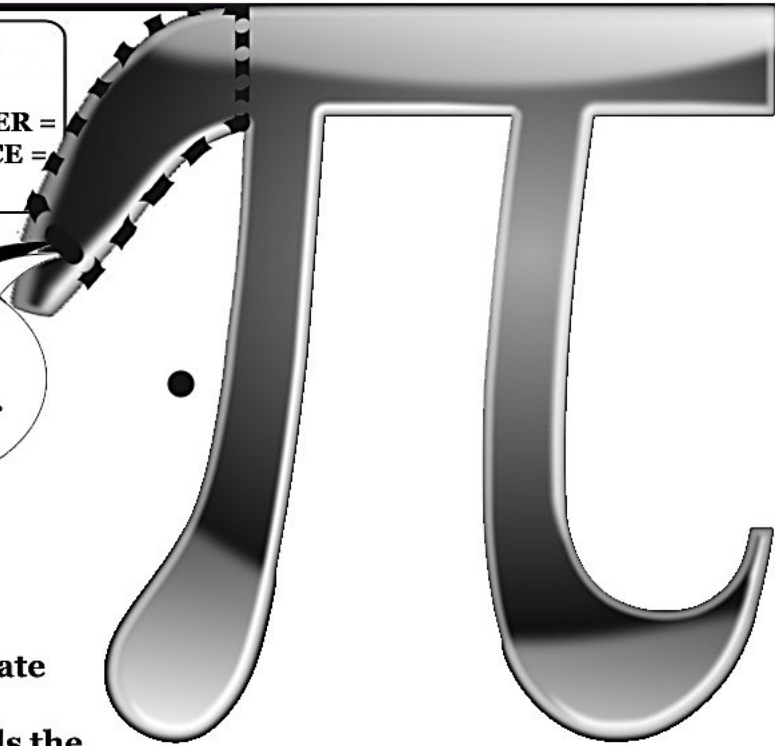**If a circle's**

DIAMETER =
its CIRCUMFERENCE =

Turn the dial
and test your
Pi memory!
What number
comes next?
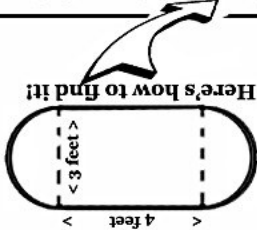
"Whether it's a coin or a plate
or the knob on a door,
the circumference equals the
diameter times three point one four."

π (Pi) is the ratio of a circle's Circumference to its Diameter. The ratio is ALWAYS 3.14...!

Or, more precisely:
Pi = 3.14159265358979323846264338327950288419716939937510582097....

So what can Pi do for me?

Here's What! What! A SNEAKY PI TRICK!

Finding the area of a rectangle is easy!
side x side = area
3 ft x 4 ft = 12 square feet

Now let's try a more difficult shape! >>>

< 4 feet >
< 3 feet >

What is the area of this dining room tabletop?

Here's how to find it!

< 4 feet >
< 3 feet >

Treat the two end semicircles as making a whole circle between them! Determine the area of the center rectangle as before and then determine the area of the end circle (as if the two halves were joined as one):
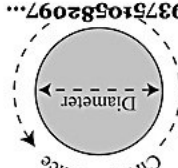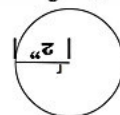
The rectangle in the center area = 4 feet x 3 feet = 12 sq feet.
The circle's area = Pi x radius squared. The radius is one-half of the diameter = 3 feet /2 = 1.5 feet
So, the area of the circle = 3.14 x 1.5² = 7.07 sq feet.
The TOTAL area is then 12 + 7.07 = 19.07 sq feet!

Meet Peter Pi!

Pi = 3.14....
Pi times a circle's diameter = the circle's circumference.
The diameter of a circle = 2 times the radius of the circle.

Diameter = edge to edge thru center
Radius = center to an edge

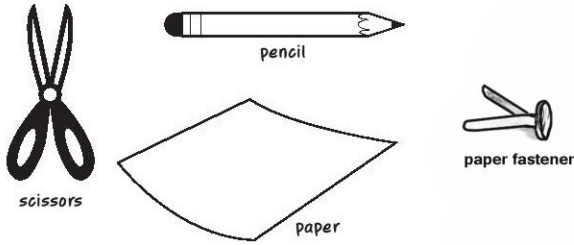Diameter
Radius

Circumference = the length around the circle

Measure the diameter of a wheel x 3.14= its circumference.

Measure the radius of a round garden x 2 x 3.14= its circumference.

diameter
radius

Peter Pi says: Get a FREE "Pi Detector" at pidayfun.com

Area = Pi x radius²

If the radius = 2 inches

2"

then radius² = 2 x 2 = 4
and Pi x r² = 3.14 x 4 =
12.56 square inches!

How to assemble your PI WHEEL

pencil

scissors

paper

What's Needed

> Thick paper or cardboard, 2 sheets
> Paper Fastener
> Scissors
> Pencil

Peter Pi says, "Follow these instructions to assemble my PI WHEEL:"

You can use the illustrations to the right as a guide. First, photocopy the pages and paste them on cardboard or heavy paper. Cut out the circle below as shown in Figure 1. Next, cut out the dotted window on the Pi Wheel cover as shown in Figure 2. Now, punch a whole in the cover at the black dot and then in the center of the wheel, as shown in Figures 3 and 4. Making sure the printing on the wheel is facing the cover side with the opening, carefully push the paper fastener through from outside the cover and through the hole in the wheel's center. Fold over the arms of the fastener, then fold the cover in half along the middle line as in Figure 5, and you are ready to go! (You can secure the cover halves together with tape if you wish.)

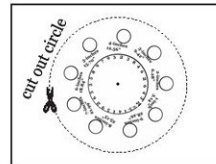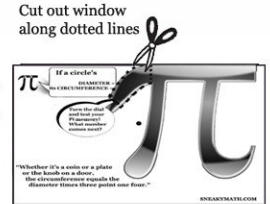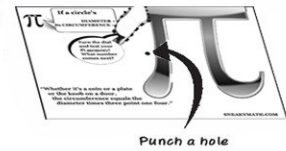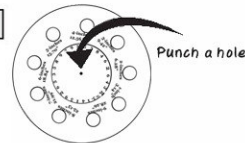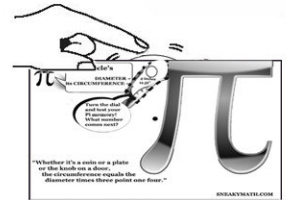To use your **PI WHEEL** to compute the circumference of various sized circles, turn the wheel until a circle's diameter appears in the window. Right below it will be that circle's circumference!

Then you can test your memory of the value of Pi! Rotate the wheel until "π = 3." appears in the window next to the pointer. Try to remember the next number in Pi and say it, then turn the wheel slightly counter-clockwise to reveal the next number. Did you get it right? How many can places you remember?

___

Fun pieces of Pi:

Most scholars consider Pi the most important and fascinating number in all of mathematics!

What do you get if you divide the circumference of a jack-o'-lantern by its diameter? Pumpkin pi!

Pi Day (3/14) is also Albert Einstein's birthday!

FIGURE 1

Cut out window along dotted lines

FIGURE 2

FIGURE 3

Punch a hole

FIGURE 4

Punch a hole

FIGURE 5

Pi Wheel dial:
- 4-inches 12.56"
- 3-inches 9.42"
- 5-inches 15.70"
- 2-inches 6.28"
- 6-inches 18.84"
- 1-inch 3.14"
- 7-inches 21.99"
- 9-inches 28.26"
- 8-inches 25.13"
- π = 3.14159265