

Measuring Pi

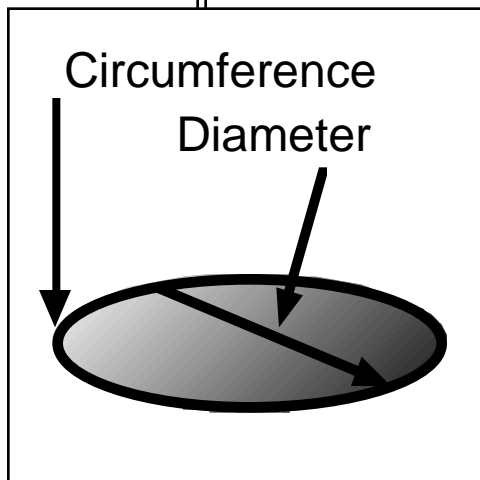
by Dr. David J. Ritchie,
Computer Club Advisor

Pi is the ratio of the circumference to the diameter of a circle. Can you measure it?

Do this:

1. Measure the *circumference* of a circular object.
2. Measure the *diameter*.
3. Divide the *circumference* by the *diameter*.

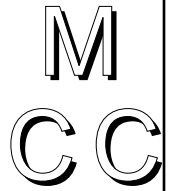
If you got 3.14..., you are right. Can you write a program to do the divide?



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Madison Computer Club News



Ms. Gilmore

Dr. David J. Ritchie

EXTRA! EXTRA! Students To Begin An Adventure!

The Madison Computer Club students will begin writing adventure programs today.

The students have spent the last six sessions learning the basics of the Perl programming language.

They have learned about variables, arrays, if statements, for loops, and while loops.

They have written simple programs to try out each of the above concepts.

Now, they will begin doing an adventure game.

And now for something totally different...

It's hard to begin writing a story from a blank sheet of paper. In the same way, it's hard to write a program from scratch.

That's the steps. Can you translate them to Perl?

What's your Temperature?

Write a program to compute the temperature in Celsius from the temperature in Fahrenheit.

To obtain the temperature in Celsius, subtract 32 from the temperature in Fahrenheit and multiple the result by 5/9.

When you have that working, add a loop to compute a table of temperatures from 0 degrees Fahrenheit to 20 degrees Fahrenheit in steps of one degree.

When you have those steps done, use those from step 2 as the block in a for loop to compute the temperature from the values of 0 degrees Fahrenheit to 20 degrees Fahrenheit in steps of 1 degree.

Do you think this for loop will do it?

In both cases, it helps to make an outline of what will be in your story or a list of steps that your computer program do.

Let's try it with the temperature problem described in the box.

1. Get temperature from keyboard (hint: <STDIN>).
2. Compute Celsius temperature by subtracting 32 and then multiplying the result by 5 and dividing by 9.
3. Print the result on the screen.

```
for ($i=0; $i <= 20; $i=$i+1)
    {block of perl code};
```

G O O D
L U C K