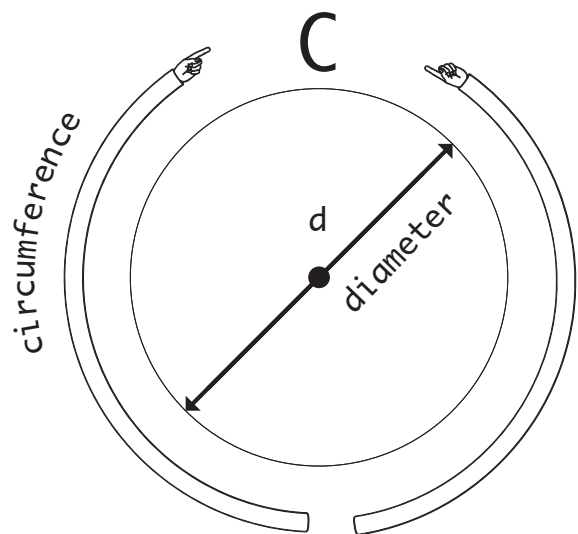# pi π

Pi is the ratio of a circle's circumference to its diameter $\pi = \frac{C}{d}$. It is a mathematical constant, which means it is always the same for every circle. In most equations it is okay to use the abbreviated form: 3.14. However, the number pi is an irrational number, which means it goes on forever and does not have a pattern that repeats. We do not quite know how many digits it has, but some computers have calculated it to over a trillion decimal places.

Mathematicians have been using some form of pi since 2000 BC. Pi helps us to find the area of a circle: Area = pi x radius squared.

The circumference of a circle is slightly more than three times as long as its diameter. The exact ratio is called π.

C

circumference

d

diameter

DID YOU KNOW? March 14th is Pi Day! Can you guess why? How will you celebrate pi day with your classmates?

> Let's take a look at how long Pi can go. Ready? GO!

3.
14159265358979323846264338327950288419716939937510582097494459230781640628620899862803482534211706798214808651328230664709384460955058223172535940812848111745028410270193852110555964462294895493038196442881097566593344612847564823378678316527120190914564856692346034861045432664821339360726024914127372458700660631558817488152092096282925409171536436789259036001133053054882046652138414695194151160943305727036575959195309218611738193261179310511854807446237996274956735188575272489122793818301194912983367336244065664308602139494639522473719070217986094370277053921717629317675238467481846766940513200056812714526356082778577134275778960917363717872146844090122495343014654958537105079227968925892354201995611212902196086403441815981362977477130996051870721134999999837297804995105973173281609631859502445945534690830264252230825334468503526193118817101000313783875288658753320838142061717766914730359825349042875546873115956286388235378759375195778185778053217122680661300192787661119590921642019893809525720106548586327886593615338182796823030195203530185296899577362259941389124972177528347913151557485724245415069595082953311686172785588907509838175463746493931925506040092770167113900984882401285836160356370766010471018194295559619894676783744944825537977472684710404753464620804668425906949129331367702898915210475216205696602405803815019351125338243003558764024749645

> Okay let's stop there, that was giving me a headache!
> So as you can see, pi will go on forever...