Math Circles - Pi Day: March 14
1. Why do we celebrate Pi day on March 14th?

How big/small is the number Pi = π?
2. Measuring $\pi$

The circumference $c$ is the distance around the circle.

Formula: $c = 2 \times \pi \times r = d \times \pi$

If $d=1$, then $c = \pi$ !!!
Activity A:

Take a circular object (for example a circular coaster at your home). Find the center of the circle. Use a piece of string to measure the diameter \( d \) of the circle. Let \( d = 1 \) unit. Cut a piece of string of length 1 unit.

Take another string and wrap it around the circle once to measure \( c \). Cut it.

Use the first string to estimate the value of \( c \). Write down your findings.
We just determined that $\pi$ is a small number, just a little greater than 3 (and smaller than 4). Measuring $\pi$ exactly with a string is very difficult.

Archimedes of Syracuse (287BC-212BC) was a famous greek mathematician who developed tools to measure the circumference of a circle and estimate $\pi$. Today we can use computers to estimate Pi.

In order to write $\pi$ more precisely we use a decimal representation. The decimal representation of $\pi$ does not repeat and never terminates.
Activity B:

Using the colors above, make a paper chain with the first 30 digits of $\pi$

Activity C:

Now let’s enjoy some Pie!!