



Pi Day Activities

Here are some ideas for students to celebrate Pi Day in the classroom on or around March 14th.

Pi Digit Distribution – Younger students can look at the first 50 or 100 digits of pi and make a bar graph of the frequency of each digit. (How many times does 0 appear?) High School students find the mean of the first 100 digits. Create circle graphs based on the digits. Use spreadsheets to examine the distribution of the digits.

Calculate Pi – Have students measure the diameter and circumference of various circular objects using tape measures or use string and then use meter sticks. Have the students divide the circumference by the diameter.

Pi Chain – Make up a color scheme 10 colors one for each number. Example: 0 is green, 1 is yellow, 2 is blue, etc.

Pi Decoration – Give the students a large Pi symbol and have them decorate it or incorporate it into a drawing.

Circle NIM – Give two students an official game board (white sheet of paper). Each student gets 3 different size circles you can give them 2 or 3 of each size. The object of the game is to place the last circle on the Official Game Board. Rules: You can't move anyone's circle that's already been placed. You can't have any portion of your circle hang over the game board. You can't overlap any other circle.

Pi Digits – Create a Hall of fame or grade-wide school records. Students memorize the digits of Pi and the student that memorizes the most can win a prize, trophy, certificate, etc. There is a web site called the Pi Trainer that you can use to run the finals of a competition or to learn the digits. You type in the digits that you know and it tells you how many digits you have correct and the next five digits.

Archimedes Contest – Each student is given 2 sheets of paper. They are given 2 chances, one per sheet to draw the most perfect freehand circle. They may not turn their paper, or hold their hand as if it were a compass. Circles must be the approximate size of a coffee cup. Students then hand in the one circle they want to have entered.

Around Town – Students are given 2 minutes to write down as many things as they can think of that are circles. CD's, buttons, coins, etc. Winner is the student with the most. This contest could also be run like "Boggle" where you throw out any item that any other student thought of and crown the winner as the student with the most original items.

Whole Class activity – Have one student stand in the middle of the gymnasium, holding one end of a known length of string. Walk the other end of the string around to form a circle, placing students evenly on the imaginary circumference. When finished, you should have your students representing a fairly good circle with one in the middle.

Pi Day Estimation – Using a large piece of cardboard, cut out a circle and paint it colorfully. Have the students estimate the number of centimeters its circumference is. Winner gets a Bakers Square Pie.

Fun With Pie – Have pies donated – how do you divide them between the students you have equitably?