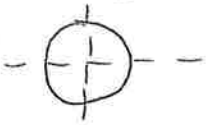
Name

Pi Day 2015

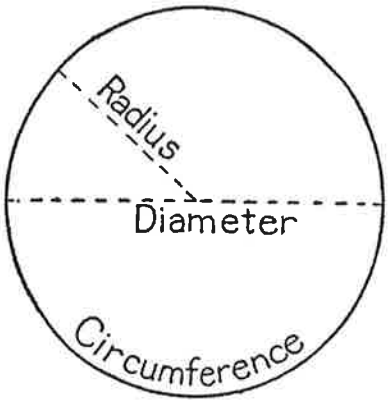
Area of a Circle

Step 1: Divide your circle in half

Step 2: Divide into fourths



Step 3: Divide each section in half again

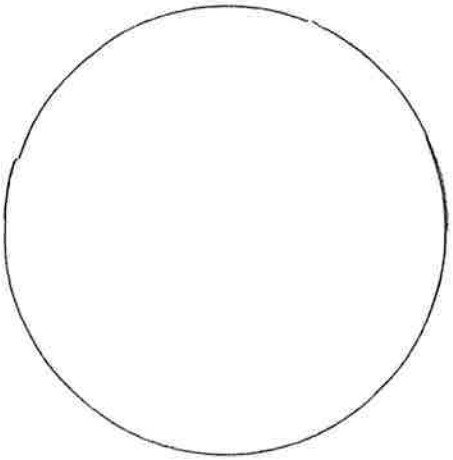


Step 4: Cut out each sector of your circle

(8 sectors)

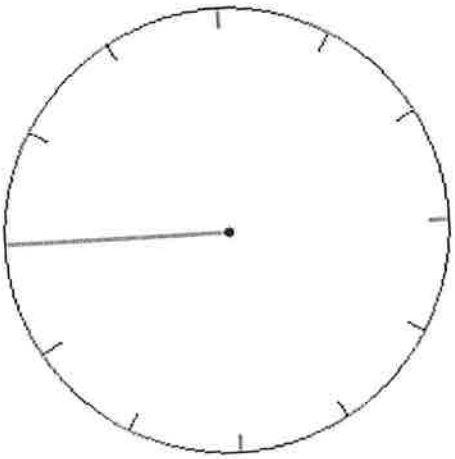
Step 5: Lay out your sectors into a parallelogram shape

Step 6: Tape your figure to your paper below



Step 7: Label the height and length of your parallelogram

Step 8: What is the area of your parallelogram?



SCHOLASTIC MATH
Where Math Gets Real™

NAME:

ANSWER SHEET

A Slice of Pi

YOUR TURN

Answer the following questions using the information in the charts and graphs.

1 Which digit appears with the greatest frequency in the first 100 digits of pi?

Ⓐ **0** Ⓒ **7**
Ⓑ **3** Ⓓ **9**

2 How many teaspoons of cinnamon and cloves combined are in one apple pi pie?

Ⓐ $\frac{3}{4}$ Ⓒ $1\frac{3}{4}$
Ⓑ $1\frac{1}{2}$ Ⓓ $1\frac{7}{8}$

3 Brahamagupta's pi approximation is a(n) __ number.

Ⓐ **rational** Ⓒ **exponential**
Ⓑ **irrational** Ⓓ **negative**

4 About what percent of digits in the first 100 digits of pi are multiples of 3?

Ⓐ **34%** Ⓒ **72%**
Ⓑ **43%** Ⓓ **88%**

5 In the current record of known decimal places of pi, what's the place value of the 4?

Ⓐ **Hundred millions**
Ⓑ **Ten billions**
Ⓒ **Ten trillions**
Ⓓ **Hundred billions**

6 Which mathematicians used inequalities to estimate pi?

Ⓐ **Archimedes and Zu Chongzhi**
Ⓑ **Brahmagupta and Archimedes**
Ⓒ **Zu Chongzhi and Leibniz**
Ⓓ **Leibniz and Brahmagupta**

7 What is the probability, in simplest form, that a digit picked at random from the first 100 digits of pi would be a 2?

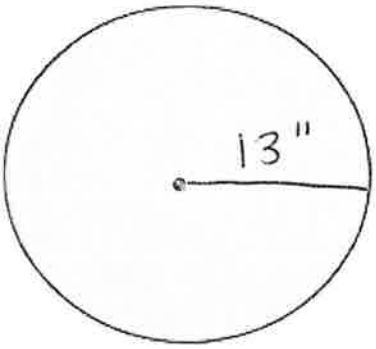
8 Rewrite Archimedes' pi estimation with decimals rounded to the ten thousandths.

9 How many apple pi pies could you make if you had $\frac{3}{4}$ teaspoons of ground allspice?

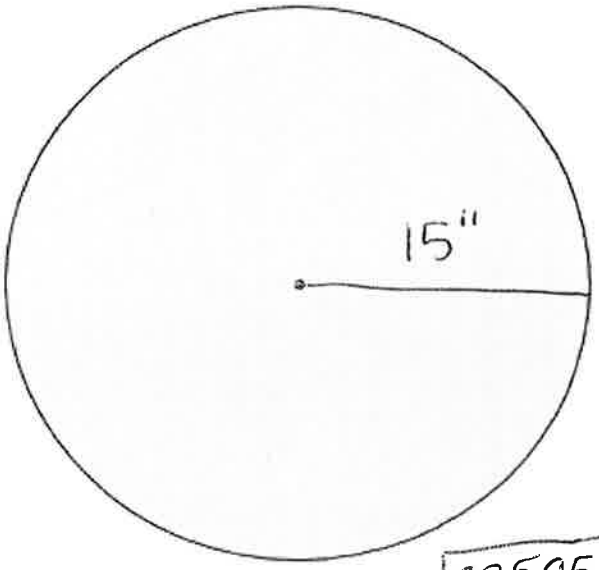
10 Describe in words what pattern(s) you see in Leibniz's series for pi.

Calculations with Pi: Better Pizza Buy

Find which is the better buy (amount of pizza per dollar):



$18.95



$25.95

You will need to:

1. Find the AREA of each pizza (Area of a circle is: $A=\pi r^2$)
2. Divide the area of each circle by the cost of the pizza.
3. Determine which deal gets you more pizza per dollar spent!
4. BONUS! You have a 10% off coupon...How much will each pizza cost?

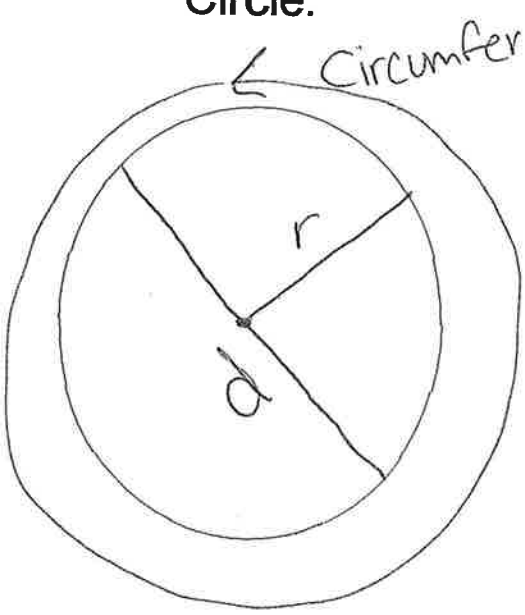
Medium Pizza:

Large Pizza:

Pi Day!

Name: Date:

Circle:



Circumference:

$C = 2\pi r$ or πd

distance around outside of circle (like the perimeter of the circle)

r - radius

d - diameter

You will Need:

* Measuring tape or string
* Circular item (lid, canister, pi tin, etc)
* Ruler
* Calculator

Object Measured (use cm)	Measured Circumference (use cm)	Measured Diameter (use cm)	Divide: Circumference / Diameter	Ratio (pi)