

# Apple Pi

Follow-up Session  
By: The Mathmajics  
(most of the group magically  
disappeared)

Apple Pi

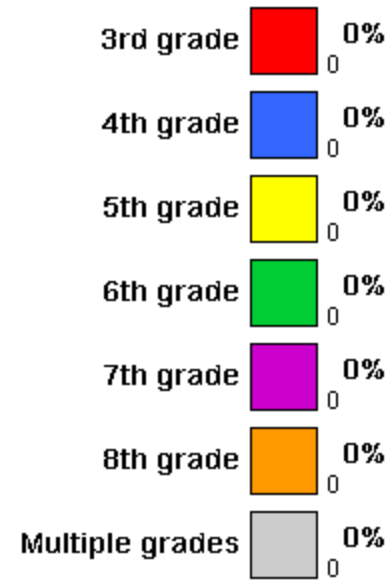
# Objectives

- 1. Students will measure the circumference and diameter of various circular objects.
- 2. Students will calculate the ratio of the circumference to the diameter.
- 3. Students will discover the formula for the circumference.

Objectives

### To what grade level did you teach this lesson?






Polls are closed.



Grade level

**Around this lesson, how much time did you devote to teaching about pi?**

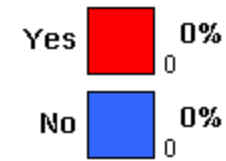
Polls are open.

- 1 class session 
- 2 class sessions 
- 3 class sessions 
- 4 or more class sessions 
- Did not teach about pi 

Pi time

**Did you feel the lesson provided the opportunity to engage in meaningful mathematical discourse?**

Polls are open.



discourse

Using the text tool on the top right of the screen, list one idea you presented that gave students the opportunity to engage in meaningful mathematical discourse:

yes!  
but the discourse was not on the topic, it was on measurement!

hands on and major discussions between students

the lessons were so hands on they felt very at ease discussing w

When they measured the circumference and then cut the ribbon, then they were to see how many times  
I'm running out of troom

graphing the diameter vs circumference

Using the text tool on the top right of the screen, list one idea you presented that gave students t...

**Did you use any additional resources related to this lesson such as other web sites or materials?**

Polls are open.

Yes (please be willing to verbally share about these)



No



additional resources

## List other resources, web sites, activities, or materials that you used:

[www.georgiastandards.org/math.aspx](http://www.georgiastandards.org/math.aspx)

Click on Math Frameworks and you can find activities for all grade levels and all subjects

<http://www.andrews.edu/~calkins/math/webtexts/circarea.gif>

[www.joyofpi.com](http://www.joyofpi.com)

has link to playing pi as "song"

<http://www.avovision.com/experiments/pi10k/index.php>

link to playing pi as music

List other resources, web sites, activities, or materials that you used:

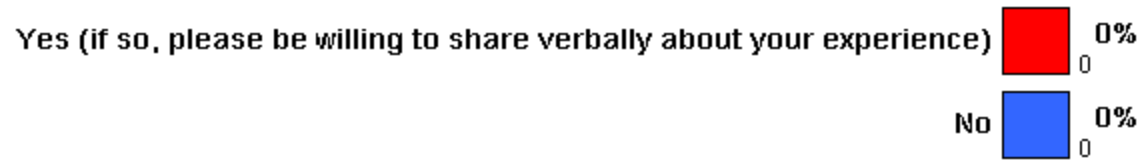


What were some of the objects  
your students measured?

What were some of the objects your students measured?

**Did you use the activity sheet provided?**

Polls are closed.



sheet



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Slide 13





Slide 14



Slide 15



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WASLEY

**CIRCUMFERENCE OF CIRCULAR SHAPES**

Directions: Using the circular shape you have been given, lay the string around it to find the circumference. Next, measure the string with your ruler to find the length of the circumference (as accurately as possible). Next, measure the diameter of your circular shape. Finally, using your calculator, divide: circumference ÷ diameter. Record your result. We will then take a class survey to record each team's results. Then we will add them together to find the average.

	Circumference(+)	Diameter	(=)	Quotient
Team 1	23.3	7.7		3.025974
	21.3	6.7		3.2272 727
Team 2	3.5	1.1		3.2
	1.9	6.5		3.1
Team 3	23.5	8		2.9
	22.1	7		3.2
Team 4	22	7		3.14
	28.3	9		3.14
Team 5	7.0	6		3.3
	28.5	9		3.16
Team 6	27.5	9		3.05
	32.4	10		3.14
Team 7	23	7		3.29
	36	11.5		3.13
Team 8	16.5	5.3		3.11
	21.5	7.1		3.03
Team 9	29.8	13		3.16
	17	6		2.83
Sum of Quotients:				56.36
Average of quotients:				3.1317

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### CIRCUMFERENCE OF (semi-circular) SOAP BUBBLES

Directions: Using a small amount of soap bubble mixture, pour it onto your tabletop. Dip the end of the straw into the remaining bubble mixture in the cup to wet the end of it. Hold your straw at about a 45° angle in the “puddle of soap on the tabletop. Blow gently into the straw to blow your bubble. DO NOT SUCK UP ON THE STRAW OR YOU WILL END UP WITH A MOUTHFUL OF SOAP! Yuk!! When the bubble pops, use your ruler to measure the diameter of the circular impression left on your desktop. Then calculate the circumference. Repeat this three times filling in the data below.

	Diameter	Calculation $C = \pi \cdot d$	Circumference
BUBBLE #1	5 in.	$C = \pi \cdot d$	15.7
BUBBLE#2	6.5 in.	$C = \pi \cdot d$	20.4
BUBBLE #3	7 in.	$C = \pi \cdot d$	22
Bubble #4	11 in.	$C = \pi \cdot d$	34.6

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## Lesson Summary:

What did your students learn from the lesson?  
(Please use the text tool to write in the space below.)

We've already said they learned that the relationship was that the c was 3 and a little bit more dian

Lesson Summary:

One thing you would change is...

One thing you would change is...

Describe the mathematical discourse promoted by this lesson.

VOCABULARY

PARTNER TALKING ( VALIDATING EACH OTHER's IDEAS)

OPPORTUNITIES FOR NEGOTIATING (MEASUREMENT)

TESTING and CONFIRMING

Describe the mathematical discourse promoted by this lesson.

## A final thought:

What elements do you feel you would repeat next year?

Edible and nonedible

Strategies sharing and comparing

ditching the string!!!

Cylinder is nice    How do you spell go grain ribbon?

grograin, i think

the s is silent when you s

connecting to surface area

say it figured that :)

Thanks!

YES PATTERNS!

Good for generalizing a rule as a closure

how about the recording sheet???

i added columns for adding, subtracting, multiplying, and

Reviewed mean too!!!    median too?    Wow what a great lesson...

A final thought:

Thank you!

Thank you!