



GO TO <http://www.math.utah.edu/~alfeld/Archimedes/Archimedes.html>

1) Who was Archimedes? \_\_\_\_\_

2) What years did he live? \_\_\_\_\_

Now, **Scroll down** and click on **A Biography of Archimedes.**

3) Where was he born? \_\_\_\_\_

4) What were some of Archimedes' nicknames? \_\_\_\_\_

\_\_\_\_\_

Ithaca, NY is named after a Greek city. Did you know Syracuse, NY is also named after a Greek city?

5) What did Archimedes do for the King of Syracuse? \_\_\_\_\_

\_\_\_\_\_

6) What does "Eureka, Eureka" mean? \_\_\_\_\_

7) What else did Archimedes do for the King of Syracuse? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8) How did Archimedes die? \_\_\_\_\_

\_\_\_\_\_

**GO BACK** to the main page!

**READ THIS:**

Archimedes succeeded in approximating a value for PI by putting a polygon inside and outside of a circle, one at a time, and measuring the **perimeter** of the polygons as he changed the number of sides. You can now be Archimedes and try this yourself!

**Scroll down** and click where it says "Click here to activate the Pi applet." It should take about 30 seconds to load, so be patient!

Once the circle appears, click on the blue rectangle that also appeared and bring it to the foreground. If you need your help, ask your teacher. Please help the person next to you.

Click on the right and change the number of sides of each polygon on the outside of the circle.

**Do you remember?**

9) What do you call a 4 sided polygon? \_\_\_\_\_

10) A 5-sided polygon? \_\_\_\_\_

11) A 6-sided polygon? \_\_\_\_\_

12) A 7-sided polygon? \_\_\_\_\_

13) An 8-sided polygon? \_\_\_\_\_

14) A 9-sided polygon? \_\_\_\_\_

15) A 10-sided polygon? \_\_\_\_\_

16) How about a 97-sided polygon? \_\_\_\_\_

17) Can you see that the approximation of PI keeps changing? \_\_\_\_\_

Try also changing the inside polygon.

18) When Archimedes got both polygons closer and closer to the circle, he determined a pretty close approximation of PI. HOW?

\_\_\_\_\_

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(Hint: Think about the circumference of a circle formula. How do we define  $\pi$ ?)

