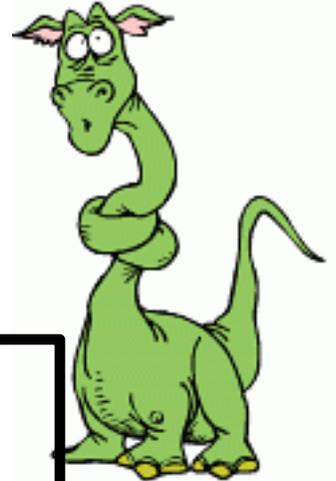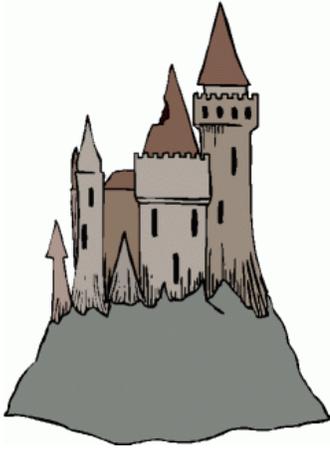# Dragons, and Medicine, and Pi, Oh My!

An activity to accompany the book <u>Sir Cumference and the Dragon of Pi</u>
by: Cindy Neuschwander

The Circle's Measure

Measure the middle and circle around,

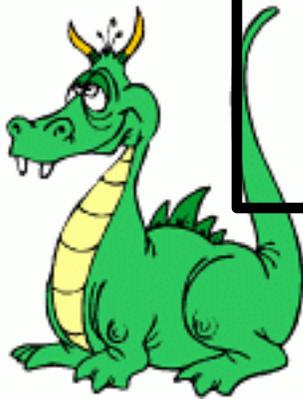Divide so a number can be found.

Every circle, great and small~

The number is the same for all.

It's also the dose, so be clever,

Or a dragon he will stay.......

forever.

excerpt from <u>Sir Cumference and the Dragon of Pi</u>
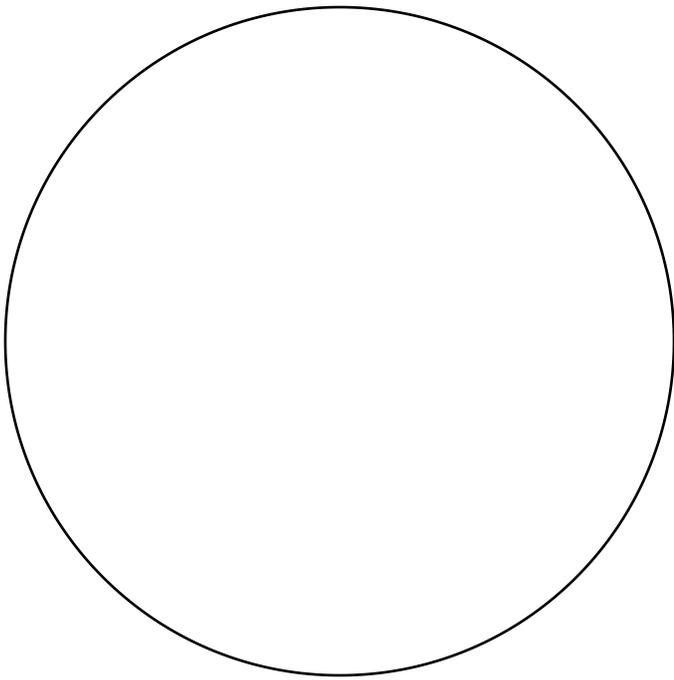
Dragons, and Medicine, and Pi, Oh My!

Materials Needed:

* a piece of string for each, long enough to go around each of the circles, but doesn't stretch

* 1 calculator for each pair

* copy of circle worksheet

* copy of student handouts

* cm ruler

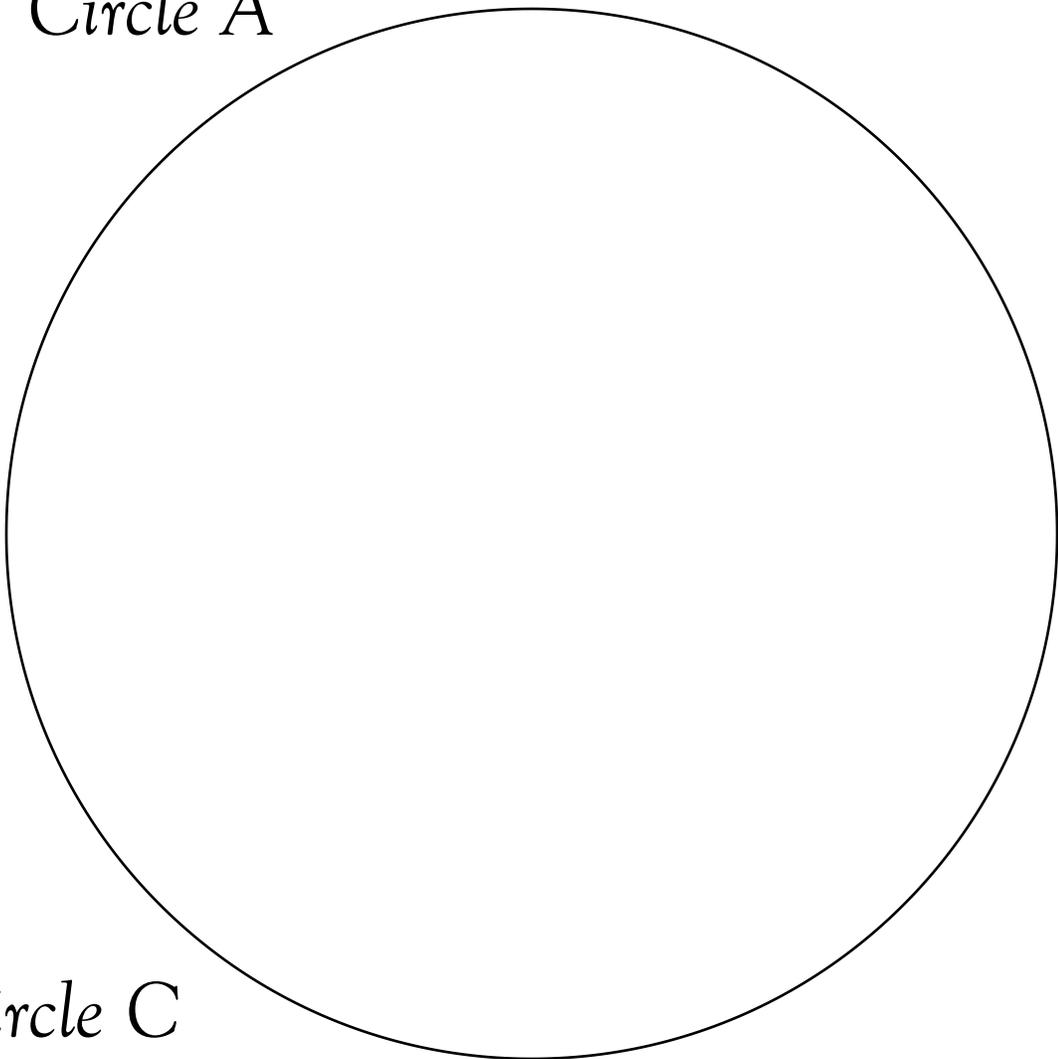## Instructions for Measuring the Circle

Place one end of the string on the outside edge of the circle and carefully run the rest of the string all the way along the outside edge of the circle. Mark the place on the string that meets the opposite end of the string by pinching it with your fingers. Lay the string out flat (still keeping your place on the string). Using a ruler, measure the part of the string that went around the outside of the circle to the nearest cm. Record your results on this page. Repeat these instructions for each circle.

Circle B
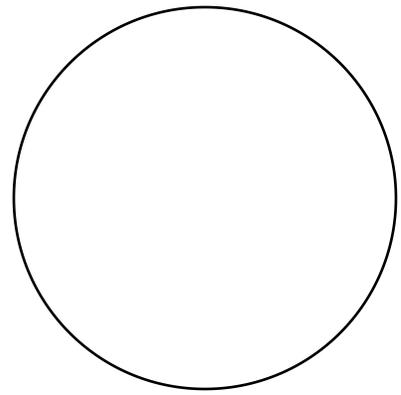
Circle A

Circle C

Dragons, and Medicine, and Pi, Oh My!

Circle A

1. Put one end of your string on the outside edge of the circle. Carefully place the string all the way around the circle. Pinch the part of the string the meets up with the other end of the string you first placed on the circle.

2. Now see how many times that part of the string will go from one edge of the circle to the other, making sure to go through the center of the circle. How many times did it go across?_____

3. Using the centimeter side of your ruler, measure the part of the string that went around the outside of the circle and place your answer here._____

4. Measure the distance across the circle making sure to go through the center._____

5. Divide the answer you go on #3 by the answer you got on #4._____

Circle B

1. Put one end of your string on the outside edge of the circle. Carefully place the string all the way around the circle. Pinch the part of the string the meets up with the other end of the string you first placed on the circle.

2. Now see how many times that part of the string will go from one edge of the circle to the other, making sure to go through the center of the circle. How many times did it go across?_____

3. Using the centimeter side of your ruler, measure the part of the string that went around the outside of the circle and place your answer here._____

4. Measure the distance across the circle making sure to go through the center._____

5. Divide the answer you go on #3 by the answer you got on #4._____

Circle C

1. Put one end of your string on the outside edge of the circle. Carefully place the string all the way around the circle. Pinch the part of the string the meets up with the other end of the string you first placed on the circle.

2. Now see how many times that part of the string will go from one edge of the circle to the other, making sure to go through the center of the circle. How many times did it go across?_____

3. Using the centimeter side of your ruler, measure the part of the string that went around the outside of the circle and place your answer here._____

4. Measure the distance across the circle making sure to go through the center._____

5. Divide the answer you go on #3 by the answer you got on #4._____

Dragons, and Medicine, and Pi, Oh My!

1. What do you notice about all of the answers on #5 for each of your circles?_____

2. Are your answers similar to the number of times your string would go across the circle going through the center?_____

3. What statement could you make about the relationship between the distance around the outside of the circle and the distance across the circle going through the middle?_____

4. What term do we use to represent the oustide edge around a circle?_____

5. What term do we use to represent the distance from one edge of a circle to the other edge of a circle that goes through the center?_____

6. What term do we use to represent that relationship between the dsitance around the outside edge of the circle and the distance across the center of the circle?_____

7. Can you give a formula that would calculate this measurement?_____

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Cupid Conversions

The End

"Fortune Teller"
Unit Conversions for feet, inches, yards, and miles

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The Viking's Map

The Viking's Map

Mark each spot that Per and Radius stop with an X on the...

1. The first place that Per and Radius stopped at was the co... (0,0).

2. A note in a barrel told them to go to (3,0).

3. Per and Radius found a stone marker with the coordinates... -1) carved in it.

4. The coordinates (-3,-3) were carved into the wall of a cav... is where they found the treasure maps.

5. After finding the maps, Per and Radius decided to go expl... They first went to (5,-6) and found a friendly peasant.

6. They decided to take a refreshing dip in the lake at the poi... (-7, -7).

7. Per and Radius decided to go hunting in the woods at coordinates (4, 6).

8. They found wild boars running through the trees at the p... (3, -5).

9. They were chased by a band of gypsies at the point (0, 6).

10. They made it back to the cottage safe and sound at the point (0,0).

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