

Name: \_\_\_\_\_

## Topic: Mystery ratio, Rational and Irrational Numbers

### 1. Discovery Activity

#### Circular Measurements and the Mystery Ratio

Directions: Using the materials provided, measure the circumference and diameter of the 2 paper plates.

Object Name	Circumference	Diameter	Mystery Ratio(C/D)
Large Paper plate			
Small Paper plate			

Use the data from the above table to answer the following questions.

1. What do you notice about the Mystery Ratio for each paper plate?

\_\_\_\_\_

2. What whole number is this ratio near?

\_\_\_\_\_

3. Look at the mystery ratios on your worksheet. How close do your ratios come to 3.14?

\_\_\_\_\_

4. The mystery ratio has a special name called \_\_\_\_\_

## 2. Hands-On Activity

### Sorting Rational and Irrational Numbers

**Directions:** Sort the cards into two different categories, rational and irrational numbers.

- If the number is rational, place it in the white cup labelled Rational.
- If the number is Irrational, place it in the blue cup. Then, answer the questions below.

Rational Number	Irrational Number

1. List the characteristics of a rational number \_\_\_\_\_  
\_\_\_\_\_

2. List the characteristics of an irrational number \_\_\_\_\_  
\_\_\_\_\_

3. Explain why  $\pi$  is an irrational number \_\_\_\_\_  
\_\_\_\_\_

4. Whenever you have worked out a problem involving  $\pi$  you have used 3.14 or  $\frac{22}{7}$ . Are these approximations irrational numbers? Explain your reasoning.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 3. Power point presentation

Historical significance and real life uses of Pi.

List two real life uses of Pi that you learn from the presentation

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_