Moves	1	2	3	4	5
Estimated area					

1. Place the coin on the graph paper and draw a circle around it

2. Lift the coin and label it 1.

3. Repeat steps 1 and 2 until you get five circles drawn on the graph paper.

4. Estimate the area of the circles using the formula

$$a = No.of\ full\ square\ in\ the\ circle + \frac{No.of\ incomeple\ squares\ \ in\ the\ circle}{2}$$

Then fill the second row appropriately.

5. Find the average of the values in the second row.

6. Using a ruler, approximate the diameter of the coin by moving the ruler above the coin till you get the largest possible measurement of the chord to the coin.

7. Use the value in 7 above to calculate the area of a circle using πr^2.

8. Compare your answers in 7 and 5 above.

In this activity students in groups of at least four will try to estimate the area the method of the grid. Each group will be provided with a graph paper ,a ruler, a coin of any denomination and a pencil.You will be required to fill the following table.

Answer Keys

Day 144:

1 - 3. No response

4. Different response

5. Different responses

6. Different responses

7. Different responses but the area should be almost equal to the value in 5 above

8. They are equal