**Lesson Title: Straw Drop (Buffon’s Needle)**

**Length: (30 minutes)**

**Standard(s) Addressed: 6.RP.A.3, 7.RP.A.3, 7.SP.D.8**

**Materials:**

1. Evenly spaced lined floor.
2. Straws of length equal to the distance between the lines on the floor.
3. Calculator

**Outline:**

1. Drop the straw on the floor. Observe if the straw lying on a line.
2. Do this drop 10 times. Record the results. (Straw on a line or not on a line).
3. Estimate the probability of the straw landing on a line.
4. Do the drop an additional 34 times.
5. For all participants, write the totals on the board.

**Questions:**

1. Before beginning, do you think that the straw is more likely to land on a line or not?
2. Before beginning, estimate the probability that the straw lands on a line.
3. Based on the totals, what do you think is the probability that the straw lands on a line?
4. Divide 2 by observed probability that the straw lands on the line. Approximately what number do you get?