

# PROBABILITY AT THE PARK

(Ring Toss concession)

*"Probability is nothing more than a mathematical way of expressing chance."*

**Original instruction:** Toss or observe someone tossing 200 rings, one at a time, towards the bottles. Note the number of times they are successful.

## DATA:

The number of rings caught on the bottles was ...**5**...

## CALCULATIONS:

1. What are the chances of getting a prize by getting a ring caught?

\_\_\_\_\_ # of rings caught / 200 rings tossed

OR

\_\_\_\_\_ # of rings caught / ring tossed

2. Express the above result in terms of percent of the time you would get a ring caught:

3. How many prizes would you win from 200 throws if one caught ring = one prize?

4. Suppose it cost \$1.00 for four throws. What would the average cost be to win a prize as a ring tosser?

5. If it costs company "CGA" \$3.00 for every prize, what would be their profit per person playing, assuming that a person will toss until he/she wins a prize?

6. If 400 people per day played until they each won a prize, what would be the profit per day from this particular booth? Assume everyone tosses at the same level of skill.