

# LARGE NUMBER ESTIMATION

## Description:

Students will be asked to estimate the answers to approximately twenty questions requiring an estimate between ten and one million.

**Number of Participants:** 2

**Approximate Time:** 30 minutes

## The Competition:

1. The questions will follow the following format:

| Question  | Estimate (Circle One)                        |
|---|--|
| a. How many pennies in the jar?   | 10, 100, 1,000, 10,000<br>100,000, 1,000,000 |
| b. How many two centimeter paper-clips could be laid end to end across a standard football playing field? | 10, 100, 1,000, 10,000<br>100,000, 1,000,000 |

2. *No calculators will be allowed.*

3. When estimating, round off to the nearest power of ten, for example, 50,001 would be closer to 10,000 than 100,000 and 45 would be closer to 10 than to 100.

### EXPLANATION:

1. round 50,001 to 50,000

100,000

- 50,000

50,000

50,000

- 10,000

40,000

50,000 away from 100,000

40,000 away from 10,000

4. Hands-on items may be felt by the students.

## Scoring:

1. Points will be awarded on the following scale:

Right on .....5 points

Within one power of 10 .....3 points

Within two powers of 10 .....1 point

2. The team with the most points wins.

3. In case of ties, the greatest number of 5-point estimates will determine the winner.

