Does the Hand relate to the Foot?

**Tennessee Standards**

SPI 0706.5.2

0706.3.11

**Skills to be covered**:

Data Collection

Interpret Data

Line of Best Fit

Organize Data

Graph Data

Making Predications

Ratios

**Materials Needed**

1 Metric ruler

Graph paper

**Class Arrangement**

Students will work in groups and also individually

**Background information**

Shaquille O'Neal, a basketball player in the NBA, is a very large person. He wears a size 20 shoe. Using ratios, you can find Shaq's had span and make comparisons to your own hand span.

**Procedure**

1. Measure the foot and hand span of 10 students. Record your data in the table below.

   (the students could be in groups of 10 or you may want to have them group by males, females, by age, or you could graph entire class)

| Student Name | Foot Length | Hand Span | Ratio (F/H) |
|---|---|---|---|
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| **Average** | | | |
| **Shaquille O'Neal** | **41 cm** | | |

2. Using the average ratios of foot length to hand span, calculate the hand span of Shaq.

3. Enter the above data into your calculator.

4. Graph the information.

5. Determine the line of best fit for the graphed data.

6. Locate the foot length and corresponding hand span for Shaq on the line.

**Extension:**

Students can extend this activity by graphing the data by hand or using a computer spreadsheet. The student can use all ways to graph and then make predications about the size of Shaq's hand span.