# Mean, Median, Mode, Range HW2

1. In a bowling tournament, there were 5 scores in the 200s, 6 scores in the 180s, 4 scores in the 160s, 4 in the 150s, and 2 in the 130s. The median score would be in the

   A. 150s
   B. 160s
   C. 180s
   D. There is not enough information given.

2. The same six students rated two science fiction movies on a scale of 1 to 10. The results are shown in the table to the right.

The ratings for the two movies have the same

A. median                    B. mean

C. mode                      D. range

| Student | Movie 1 Rating | Movie 2 Rating |
|---------|----------------|----------------|
| A | 3 | 6 |
| B | 5 | 7 |
| C | 6 | 6 |
| D | 7 | 6 |
| E | 8 | 5 |
| F | 8 | 7 |

3. The table below shows the number of moons that circle each planet in our solar system.

| Mercury | Venus | Earth | Mars | Jupiter | Saturn | Uranus | Neptune |
|---------|-------|-------|------|---------|--------|--------|---------|
| 0 | 0 | 1 | 2 | 17 | 22 | 5 | 3 |

Find the mean and median number of moons. How many planets have more than the mean number of moons?

   Mean:                    Median:

4. Ray got scores of 80, 96, 84, 95, and 90 on five math tests. What is his mean score?                    His median score?

On his next test he earned a 25. What is his mean score now?

4 (continued).  The teacher uses the following grading scale: "A" 90–100; "B" 80-89; "C" 70- 79; "D" 60-69; and "F" 0-59. Knowing this, Ray went to the teacher and suggested that she use the median to determine his score. Why?

5.  Mrs. Johnson owns a small dress shop and it is time to make her order for the next season. Because she does not have much storage space, she will have to cut back on her stock. Looking at her sales data, she finds she sold the following dresses:

| Size | xxs | xs | s | m | l | xl | xxl | xxxl |
|------|-----|----|----|----|----|----|----|----|
| Number sold | 3 | 11 | 17 | 15 | 12 | 6 | 3 | 2 |

a)  What is the mean?          The median?          The mode?

b)  Why are the mean and median sizes meaningless to Mrs. Johnson? Explain.

c) What sizes would you recommend she stock?  Explain!

6. The Shoestring Postcard Company has ten employees. They need to hire 1 additional production worker and want to include the average annual salary in their help wanted advertisement. The following is a list of the annual salaries of the current staff.  Find the mean, median and mode to answer the questions.

CEO              $120,000          Mean:

Vice Pres        $ 80,000          Median:

Prod. Workers    $30,000          Mode:
                 $28,000
                 $25,000
                 $20,000          Which measure of central tendency (average)
                 $20,000          would the CEO like to publish in his
                 $15,000          advertisement if he wants to appear to be
                 $15,000          paying well?
                 $10,000

                                  Which measure would be the most accurate to
                                  advertise for the production worker position?