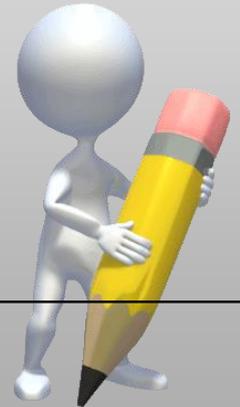


Do Now

Please place your homework in front of you.

Discuss your comparisons of the football scores for **The Green Machine** and **Blue Thunder** with your teammates.

Thank you!



NOTES

Four statistical measures that help you describe a set of data are the mean, median, mode, and range.

Mean: The arithmetic average. The sum of the values divided by the number of items of data.

Median: The middle value when the data are arranged in order. If the number of items of data is odd, the median is the middle value. If the number of items of data is even, add the two middle values and divide by 2.

Mode: The value that occurs most frequently in the set of data. Some sets of data have no mode. Some have more than one mode.

Range: The difference between the greatest and the least values in a set of data.

NOTES

It is always helpful to first arrange your data set in order before finding mean, median, mode, and range.

Measures of Central Tendency: mean, median, and mode are referred to as measures of central tendency. Once calculated, they are found near the center of a “normal” ordered data set.

Range: Range is a measure of the variation of the data.

The Green Machine

28, 3, 6, 7, 12, 3, 21, 0

Mean

Median

Mode

Range

Blue Thunder

14, 10, 6, 10, 10, 14, 6, 10

Mean

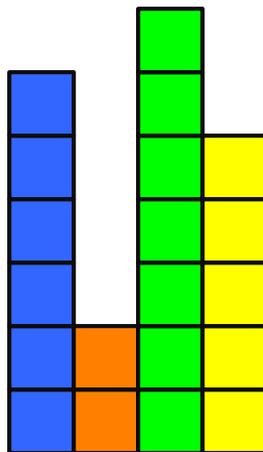
Median

Mode

Range

Mean Demonstration

What is the mean number of blocks per column below?



What is the mean?

How did you find the mean?

Can anyone think of another way to find it?

If I want to add another column and I want the new mean to be 6, how many blocks will be in this new column?

Engineering application

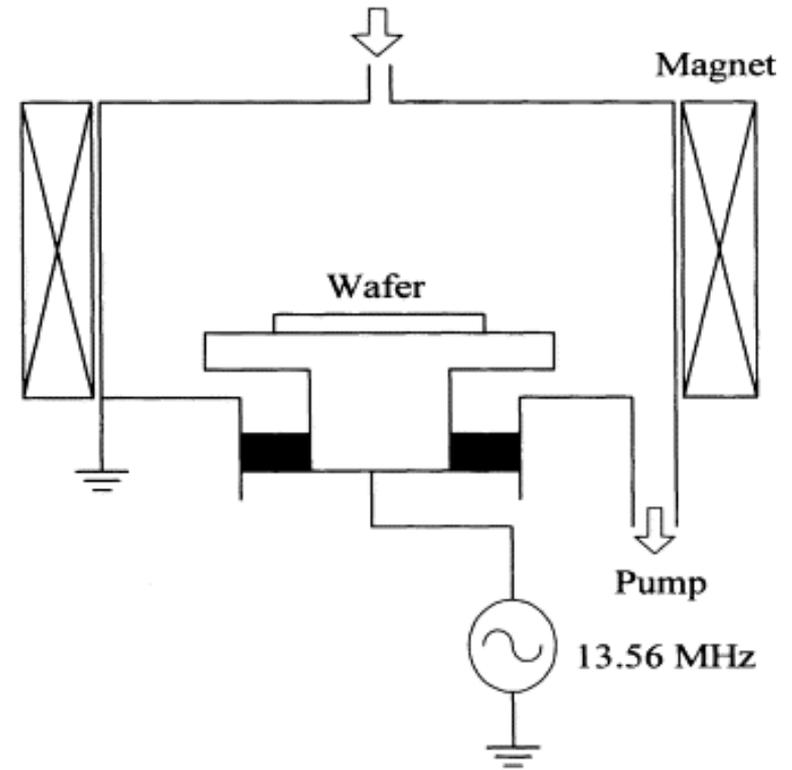
Discuss uniformity measurements on Lam etcher

27.13

27.07

26.94

27.02



Statistics Song

Mean, the average

Mode, most often

Range, subtract the smallest
from the largest

Median, the middle number
when you line them
from the greatest to the least

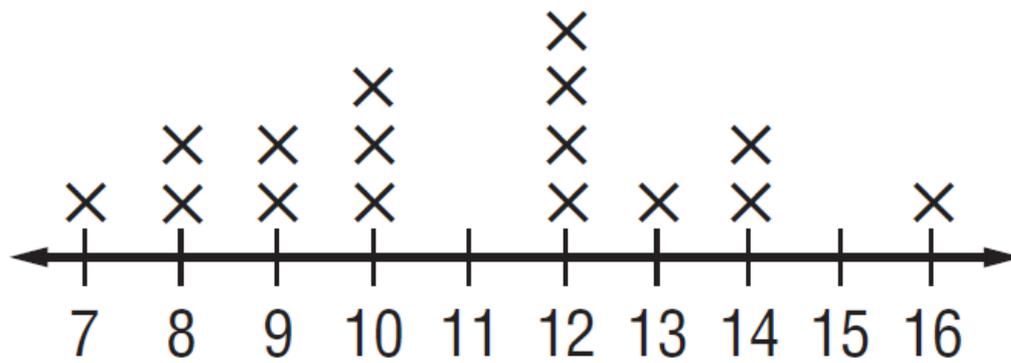


Grant surveyed the age of students attending a football game. The results are shown in the **line plot** below.

What is the range of ages of the students that Grant surveyed?

What is the median age?

What is the most common age?



Students' ages

Recent Notable Earthquakes

Date	Place	Magnitude (Richter Scale)
September 19, 1985	Michoacan, Mexico	8.1
December 7, 1988	Armenia	7.0
October 17, 1989	San Francisco Bay Area, CA	7.1
January 16, 1995	Kobe, Japan	6.9
May 10, 1997	Northern Iran	7.5
May 30, 1998	Northeastern Afghanistan	6.9
August 17, 1999	Western Turkey	7.4
January 26, 2001	Gujarat, India	7.9
June 23, 2001	Arequipa, Peru	8.1
March 25–26, 2002	Nahrin, Afghanistan	6.1
January 22, 2003	Colima, Mexico	7.6
May 21, 2003	Northern Algeria	6.8

Find the mean, median, mode, and range of magnitudes of the earthquakes listed in the table above.

