Use the following data (shoe sizes of some high schoolers) to find the mean, median, mode and 5 number summary.

5.5,7.5,8,8,8,9.5,10,10,11,11.5,13,15

Mean: 9.75

Median: 9.75

Mode: 8

What interval describes potential outliers?
Are there any outliers in our data?

Min: 5.5
Q1: 8
Med: 9.75
Q3: 11.25
Max: 15

Use the following data (test scores from a chapter test) to find the mean, median, mode and 5 number summary.

75, 86, 94, 77, 57, 42, 96, 98, 68, 78, 78, 79, 77, 85, 84

42 ← outlier

What interval describes potential outliers? Are there any out

Mean: 78.3

Median: 78

Mode: 77, 78

5-Number Summary

Min: 42
Q1: 75
Med: 78
Q3: 86
Max: 98

In each case, identify whether the average is referring to mean, median or mode.

The average grade in the class is the halfway grade, in which half of the class exceeded and half the class fell short of.

Middle

Median

Most American high school students have a cell phone.

Mode

A baseball player's batting average is .428.

Mean

In each case, identify whether the average is referring to mean, median or mode.

The average test score was an 82.

Mean

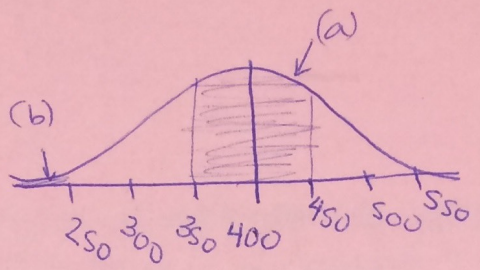
The average IQ puts you in the middle of the population.

Median

The average football player has received an injury from football.

Mode

Test scores on a college entrance exam follow a normal curve and have a mean of 400 and a standard deviation of 50. Find the probability of randomly selecting a student who's score is a) in the range of 350-450 and b) below 250.



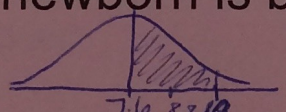
a) $350 - 450 = \boxed{68\%}$
$-1\sigma \quad +1\sigma$

b) 250 $\quad 100 - 99.7 = 0.3$ ← both tails
-3σ

$\frac{0.3}{2} = \boxed{0.15\%}$

The weight of a sample of newborns is a normally distributed curve with mean 7.6 lbs and a standard distribution of 1.2 lbs.

a) What is the probability the weight of a newborn is between 7.6 and 10 lbs?



Mean $\quad \uparrow 2\sigma$

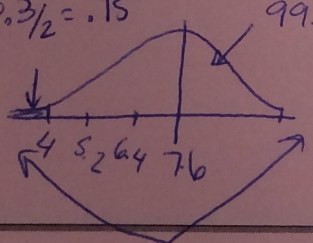
$\frac{95}{2} = \boxed{47.5}$

b) What is the probability the weight is below 4 lbs?

$\uparrow$
-3σ

$\boxed{0.15\%}$

$0.3/2 = .15$



$100 - 99.7 = .3$

0.3