$\qquad$

Period: $\qquad$

## The Effect of Outliers

Terms:
Outlier - a number very different from the other numbers in a data set.


Objective:
You will learn the effect an outlier can have on the mean, median, and mode of a data set.


## Examples:

Ex. 1 Daily temperatures for Medfield in the last week of August

Data set: $87^{\circ}, 88^{\circ}, 92^{\circ}, 94^{\circ}, 94^{\circ}$

$$
\text { Mean }=91^{\circ} \quad \text { Median }=92^{\circ} \quad \text { Mode }=94^{\circ}
$$

What if there was one very cold day added to the data set?

New data set: $55^{\circ}, 87^{\circ}, 88^{\circ}, 92^{\circ}, 94^{\circ}, 94^{\circ}$

$$
\text { Mean }=85^{\circ} \quad \text { Median }=90^{\circ} \quad \text { Mode }=94^{\circ}
$$

# Notes and Handouts 

Unit: Mean, Median, and Mode
$\qquad$
Math6

Period: $\qquad$


1) Heights of buildings in Boston (in feet)

Data Set: $400 \mathrm{ft} ., 1,012 \mathrm{ft} ., 356 \mathrm{ft} ., 345 \mathrm{ft}$.

Which value is the outlier? $\qquad$

Find the mean, median, and mode without the outlier.

Find the mean, median, and mode with the outlier.

