

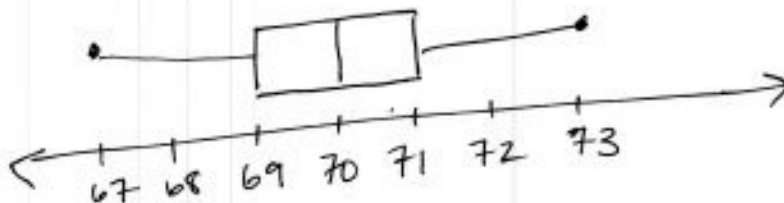
In problems 1-3 use the following data to answer the questions.

Height in inches of 14 college baseball players: 70, 69, 72, 70, 68, 71, 70, 69, 71, 70, 67, 69, 71, 73.

1. Find the mean, median, mode, standard deviation, and variance

70 ← ← ← ← → 2.28
70 70 70 1.51

2. Construct a box plot to represent the data



3. State if the data represented is skewed. Explain your reasoning.

no, it is pretty symmetric

In each case, identify whether the average described is representing mean, median, or mode.

4. The average Irish child with red hair also has freckles.

mode

5. The pitcher's earned run average is 2.35.

mean

6. The choir lined up with tall people in the back, short people in front, and people of average height in the middle.

median

Use the following data to answer questions 7-11

Year	Mark McGwire Home run totals
86	3
87	49
88	32
89	33
90	39
91	22
92	42
93	9
94	9
95	39
96	52
97	58
98	70
99	65
00	32
01	29

7. Find the mean, median, mode, standard deviation, and variance

$\text{mean} = 36.4375$
 $\text{med} = 36$
 $\text{mode} = 32, 37, 9$
 $\text{SD} = 19.02$ $\text{variance} = 361.76$

8. State whether the mean or median is a better measure to represent the data and why.

neither/both? they are close to the same

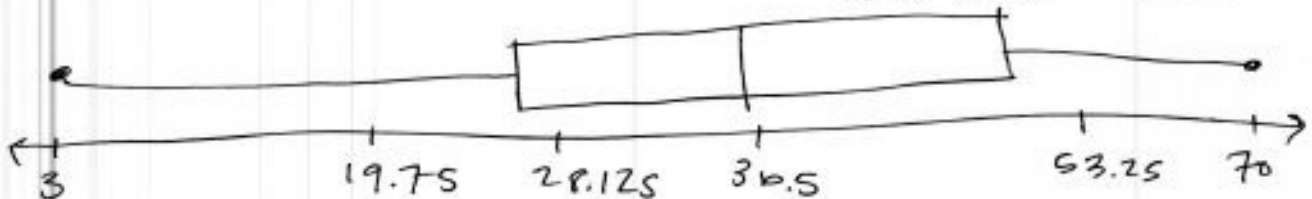
9. The data ranges from a low of 3 to a high of 70. Is either of these numbers considered an outlier?

NO

$50.5 - 25.5 = (25) 1.5 = 37.5$
 $50.5 + 37.5 = 88$
~~50~~
 $25.5 - 37.5 = -12$

{ 3, 25.5, 36, 50.5, 70 }

10. Create a box plot to represent the data.



11. State the IQR and if the data is skewed. no..

$\text{IQR} = 25$

Determine the 5 number summary, range, IQR, and identify any outliers.

12. Salaries for employees in one department of the Garcia Brothers Company in thousands of dollars: 33.5, 35.3, 33.8, 29.3, 36.7, 32.8, 31.7, 33.5, 28.2, 34.8, 33.5, 29.7, 38.5, 32.7, 34.8, 34.2, 31.6, 35.4

{ 28.2, 31.7, 33.5, 35.3, 34.8 }

$\text{range} = 319.8$

$\text{IQR} = 3.6$

$3.6 \times 1.5 = 5.4$

$31.7 - 5.4 = 26.3$ no

$2 \times 3.6 + 5.4 = 10.7 \rightarrow \text{yes } (34.8)$

→ or if you change it to 39.8...

{ 28.2, 31.7, 33.5, 34.8, 38.5 }

$\text{range} = 10.3$

$\text{IQR} = 3.1$

No outliers!

$3.1 \times 1.5 = 4.65$

$31.7 - 4.65 = 27.05$

$34.8 + 4.65 = 39.45$