

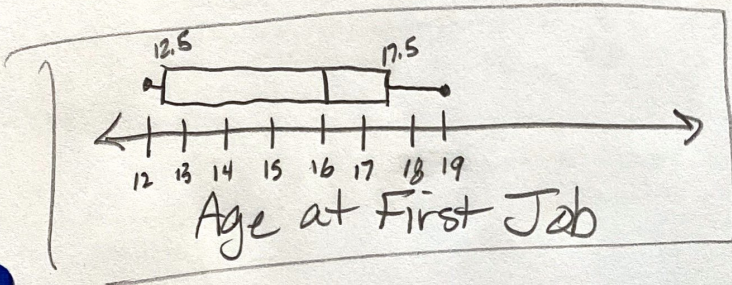
# Five-number summaries, IQRs and Box-and Whisker Plots WS

Key

For each set of data, calculate the 5-number summary and the IQR, then draw a box-and-whisker plot.

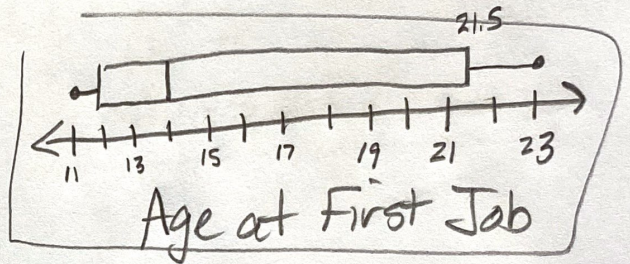
- 1)  $n=9$  Age at First Job  
~~16~~ ~~12~~ ~~12~~ ~~17~~ ~~13~~ ~~16~~ ~~19~~  
~~18~~ ~~14~~

$12, 12, 13, 14, 16, 16, 17, 18, 19$   
 $\frac{17+16}{2}$   
 min = 12  $Q1 = 12.5$  Median = 16  $Q3 = 17.5$   
 max = 19  
 $\frac{17.5 - 12.5}{}$   
**IQR = 5**



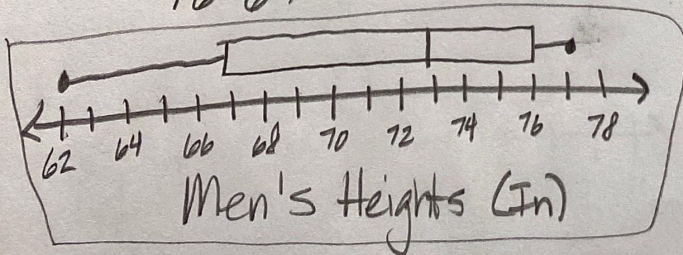
- 2)  $n=9$  Age at First Job  
~~11~~ ~~14~~ ~~21~~ ~~22~~ ~~23~~ ~~14~~ ~~18~~  
~~11~~ ~~17~~

$11, 11, 13, 14, 17, 21, 22, 23$   
 $\frac{11+13}{2}$   
 min = 11  $Q1 = 12$  median = 14  $Q3 = 21.5$   
 max = 23  $\frac{21+22}{2}$   
**IQR = 9.5**  
 $\frac{21.5 - 12}{}$



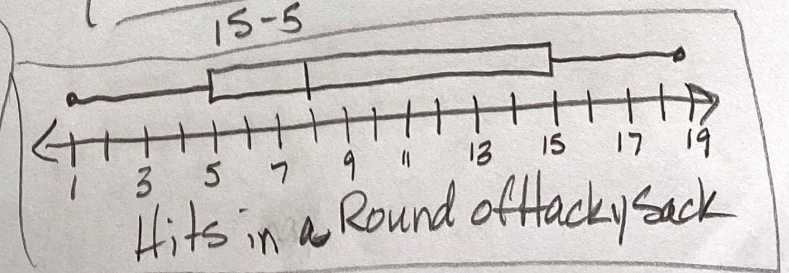
- 3)  $n=11$  Mens Heights (Inches)  
~~67~~ ~~76~~ ~~73~~ ~~77~~ ~~71~~ ~~67~~ ~~75~~  
~~62~~ ~~73~~ ~~76~~ ~~67~~

$62, 67, 67, 67, 71, 73, 73, 73, 76, 76, 77$   
 min = 62  $Q1 = 67$   $Q3 = 76$   
 max = 77 Median = 73  
**IQR = 9**  
 $76 - 67$



- 4)  $n=10$  Hits in a Round of Hacky Sack  
~~15~~ ~~7~~ ~~1~~ ~~18~~ ~~5~~ ~~8~~ ~~8~~  
~~19~~ ~~8~~ ~~12~~

$1, 5, 5, 7, 8, 8, 12, 15, 15, 19$   
 min = 1  $Q1 = 5$   $Q3 = 15$   
 max = 19 Median = 8  
**IQR = 10**  
 $15 - 5$





5)  $n=11$  Mens Heights (Inches)

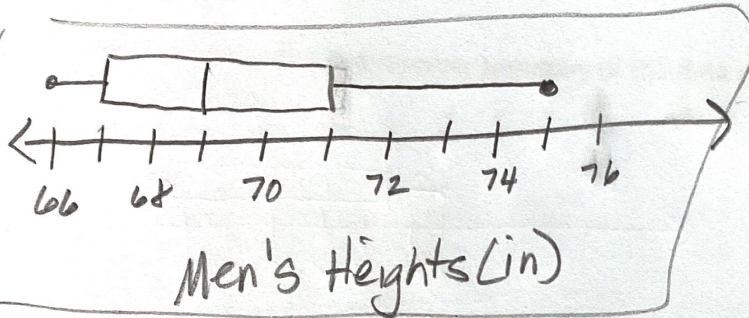
~~71~~ ~~68~~ ~~70~~ ~~72~~ ~~67~~ ~~69~~ ~~66~~  
~~71~~ 75 67 67

66, 67, 67, 67, 68, 69, 70, 71, 71, 72, 75

min=66 Q1=67 Q3=71  
 max=75 median=69

IQR=4

71-67



6)  $n=11$  Mens Heights (Inches)

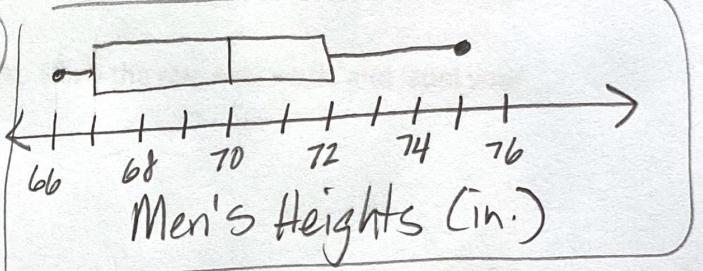
75 67 67 68 72 66 72  
 72 70 73 69

66, 67, 67, 68, 69, 70, 72, 72, 72, 73, 75

min=66 Q1=67 Q3=72  
 max=75 median=70

IQR=5

72-67



7)  $n=10$  Goals in a Hockey Game

~~3~~ ~~1~~ ~~6~~ ~~9~~ ~~2~~ ~~11~~ ~~4~~ ~~9~~  
~~5~~ ~~6~~

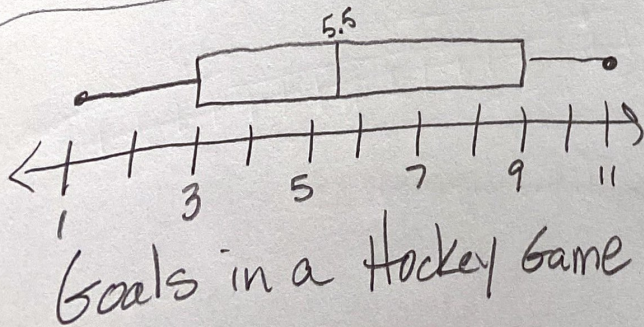
1, 2, 3, 4, 5, 6, 6, 9, 9, 11

min=1 Q1=3 Q3=9  
 max=11 median=5.5

$\frac{5+6}{2}$

IQR=6

9-3



8)  $n=10$  Test Scores

~~41~~ ~~40~~ ~~54~~ ~~48~~ ~~51~~ ~~45~~ ~~44~~  
~~45~~ ~~48~~ ~~51~~

40, 41, 44, 45, 45, 45, 48, 51, 51, 54

min=40 Q1=44 Q3=51  
 max=54 median=45

IQR=7

51-44

