

1. The stem and leaf plot below represents history quiz scores out of 45 points.

a) Which score is the mode? 12 points

b) What percentage of students scored over 20 points?

24, 41, 41, 43
 $\frac{4}{11} \approx 36.36\%$

stem	leaf
0	5 7
1	1 2 2 2
2	0 4
3	
4	1 1 3

c) Finish the key for the stem and leaf plot.

key: 2/0 means
20 points

Points Scored by Chicago Bulls (2003-04 Season)

Chicago Bulls	Total Points	Chicago Bulls	Total Points	Chicago Bulls	Total Points
Jamal Crawford	1383	Marcus Fizer	360	Jalen Rose	212
Eddy Curry	1070	Jerome Williams	345	Corie Blount	207
Kirk Hinrich	915	Eddie Robinson	343	Jannero Pargo	175
Antonio Davis	579	Ronald Dupree	292	Linton Johnson	173
Kendall Gill	539	Tyson Chandler	213	Donyell Marshall	139

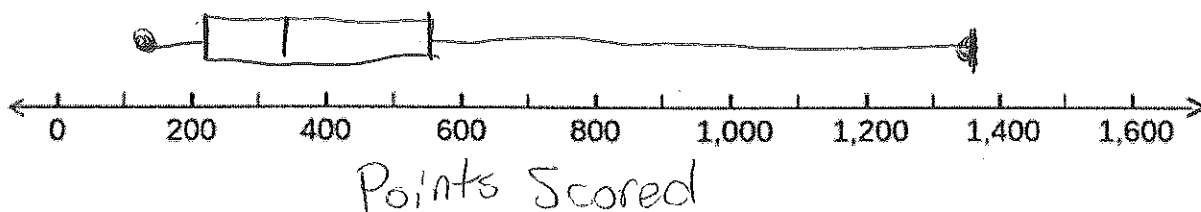
2. Find the 5 Number Summary.

Min 139 Q₁ 207 Median 343 Q₃ 579 Max 1383

3. Find and interpret the measures of spread.

Range 1244 this means 1244 points between Crawford & Marshall
 IQR 372 this means Half of the players scored between 207 and 579 points

4. Create a box plot of the data. Chicago Bulls



5. What do you notice by looking at the box plot? Are there any outliers? Explain.

$1.5IQR$
 $1.5(372) = 558$
 $Q_1 - 1.5IQR = 207 - 558 = -351$
 No points scored under -351
 $Q_3 + 1.5IQR = 579 + 558 = 1137$
Crawford > 1137!

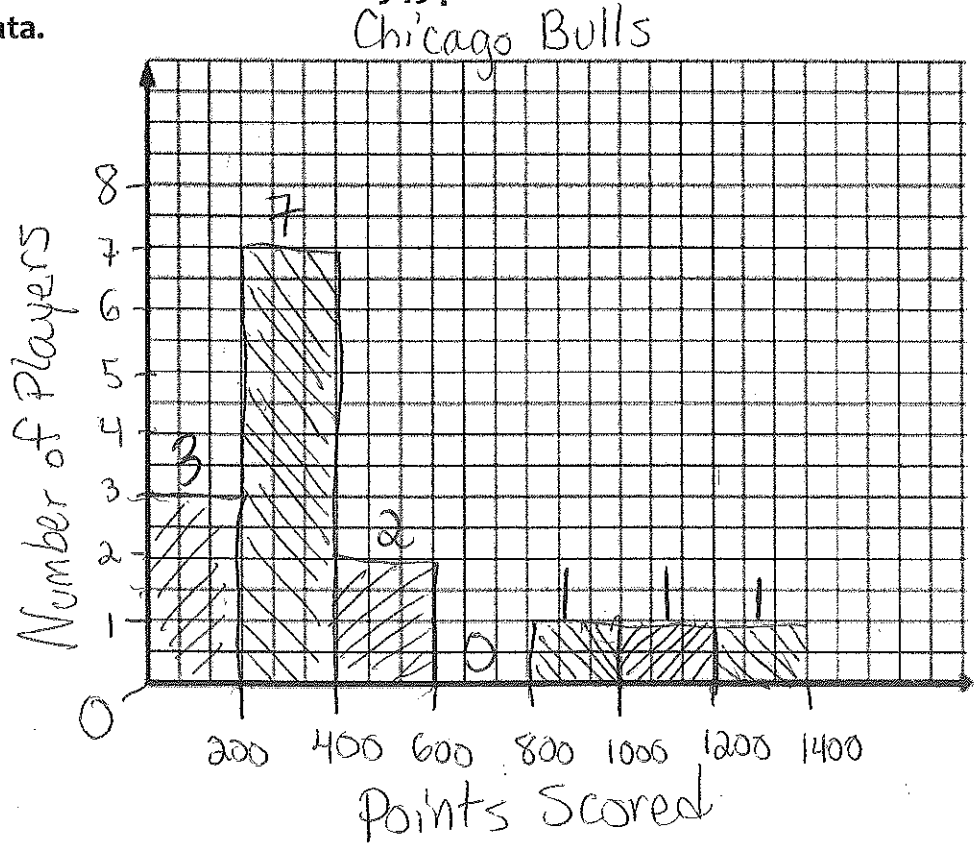
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Sum of Bull's Points: 6945 points

6. Make a histogram of the data.

Points Interval	# of Players
$0 \leq \text{points} < 200$	3
$200 \leq \text{points} < 400$	7
$400 \leq \text{points} < 600$	2
$600 \leq \text{points} < 800$	0
$800 \leq \text{points} < 1000$	1
$1000 \leq \text{points} < 1200$	1
$1200 \leq \text{points} < 1400$	1



7. How can you describe the distribution of the data?

Histogram is skewed to the right because most players scored under 600 points. The interval in which most players scored is 200 to 400 points.

8. Suppose that the coach of the Bulls wants the overall average points per player to be 600. If a 16th player was added to the team, how many points would that player have to score?

Show your work algebraically. (Sum of Bull's points is below the table)

$$6945 \text{ (15 players)} \quad (16) \frac{6945 + x}{16} = 600(16)$$

$$6945 + x = 9600$$

$$-6945 \quad -6945$$

16th player must score 2655 points!

1. The stem and leaf plot below represents history quiz scores out of 45 points.

a) Which score occurred the most?

24 points

b) What percentage of students scored over 40 points?

{41, 41, 43} $\frac{3}{11} \approx 27.27\%$

stem	leaf
0	5 7
1	1 2
2	0 4 4 4
3	
4	1 1 3

c) Finish the key for the stem and leaf plot.

key: 4|1 41 Points

Total Points Scored by Los Angeles Lakers Players (2001 – 2002 Season)

Player	Points	Player	Points	Player	Points
Kobe Bryant	2019	Robert Horry	550	Brian Shaw	169
Shaquille O'Neal	1822	Lindsey Hunter	473	Mark Madsen	167
Derek Fisher	786	Samaki Walker	460	Jelani McCoy	26
Rick Fox	645	Stanislav Medvedenko	331	Joseph Crispin	10
Devean George	581	Mitch Richmond	260	Mike Penberthy	5

2. Find the 5 Number Summary.

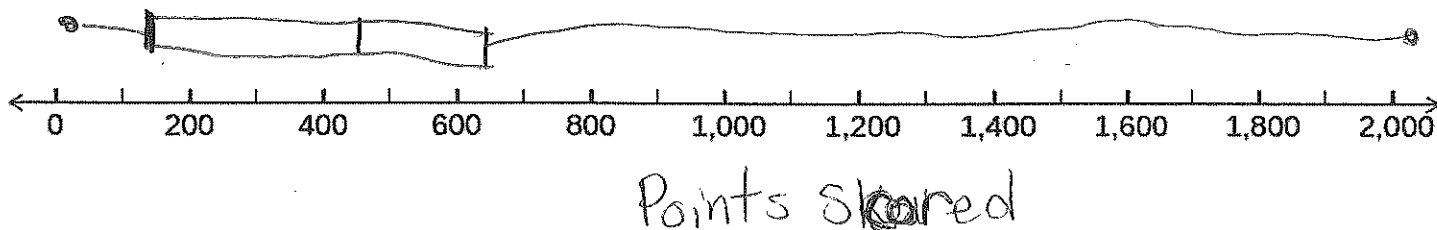
Min 5 Q_1 167 Median 460 Q_3 645 Max 2019

3. Find and interpret the measures of spread.

Range 2014 this means 2014 points between Bryant and Penberthy

IQR 478 this means Half of the 15 Lakers scored between 167 and 645 points. A spread of 478 points scored among the middle players.

4. Create a box plot of the data.



5. What do you notice by looking at the box plot? Are there any outliers? Explain.

$1.5IQR$

$1.5(478) = 717$

$Q_1 - 1.5IQR$

$167 - 717$

-555

No scores under -555

$Q_3 + 1.5IQR$

$645 + 555 = 1200$

Kobe is over 1200 points!

Shaq is over 1200 points!

Total Points Scored by Los Angeles Lakers Players (2001 - 2002 Season)

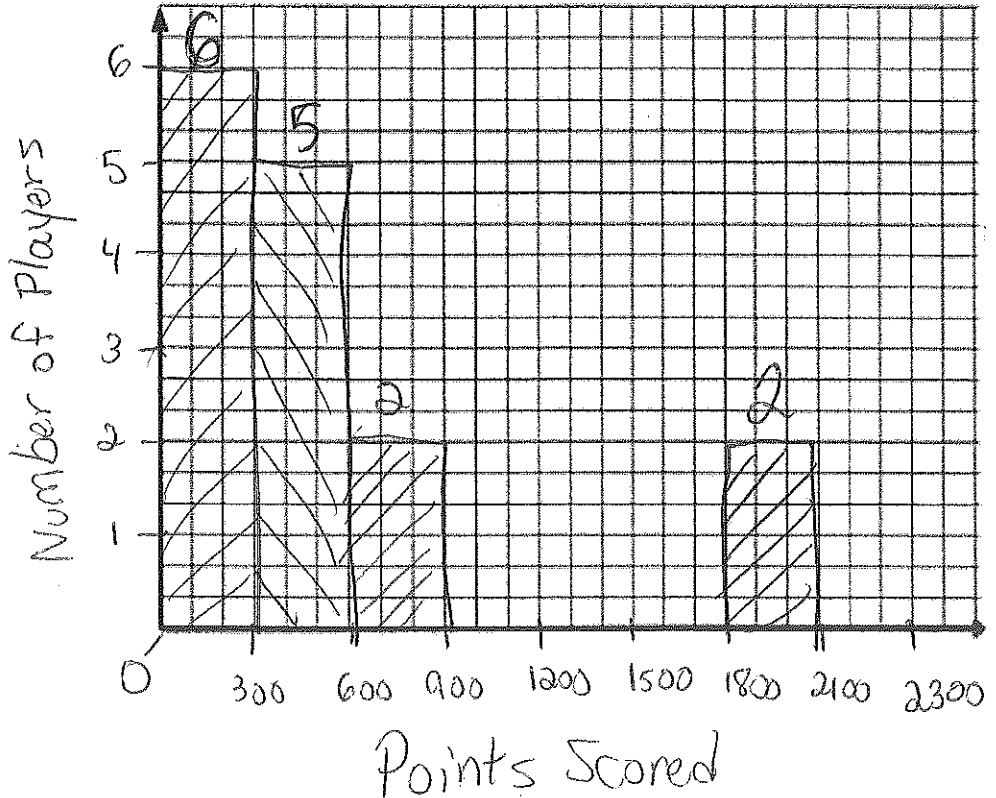
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Rick Fox	645	Stanislav Medvedenko	331	Joseph Crispin	10
Devean George	581	Mitch Richmond	260	Mike Penberthy	5

Sum of Laker's Points: 8304 points

Lakers

6. Make a histogram of the data.

Points Interval	# of Players
$0 \leq \text{points} < 300$	6
$300 \leq \text{points} < 600$	5
$600 \leq \text{points} < 900$	2
$900 \leq \text{points} < 1200$	0
$1200 \leq \text{points} < 1500$	0
$1500 \leq \text{points} < 1800$	0
$1800 \leq \text{points} < 2100$	2



7. How can you describe the distribution of the data?

The points scored is skewed to the right. 13 of the 15 players scored under 900 points. More than half of the 15 players scored under 600 points!

8. Suppose that the coach of the Lakers wants the overall average points per player to be 600. If a 16th player was added to the team, how many points would that player have to score?

Show your work algebraically. (Sum of the Laker's points is below the table)

8304 (15 players) (16) $\frac{8304 + x}{16} = 600(16)$

16th player needs to score 1296 points.

$$\begin{array}{r} 8304 + x = 9600 \\ -8304 \quad -8304 \\ \hline x = 1296 \end{array}$$