

Name: Key

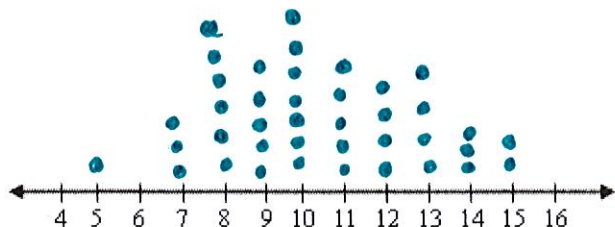
Date: _____

Performance Task: The Basketball Star - Is Bob or Alan a Basketball Star?

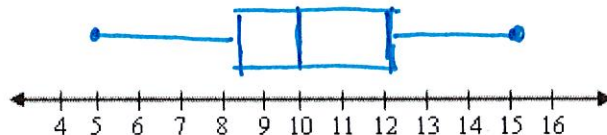
Bob's Points per Game

8, 15, 10, 10, 10, 15, 7, 8, 10, 9, 12, 11, 11, 13, 7, 8, 9, 9, 8, 10, 11, 14, 11, 10, 9, 12, 14, 14, 12, 13, 5, 13, 9, 11, 12, 13, 10, 8, 7, 8

1. Bob believes he is a basketball star and so does his friend Alan. Create a dot plot and box plot of Bob's points for the last 40 games.



Bob's Points



Bob's Points

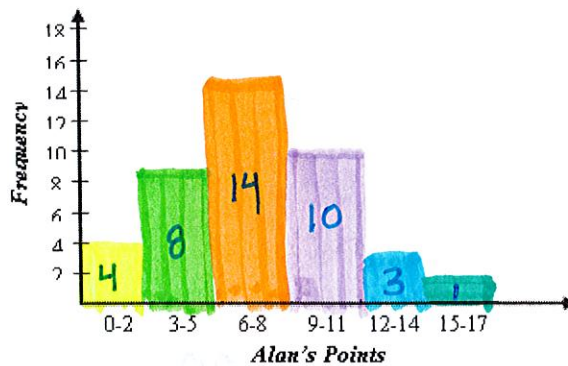
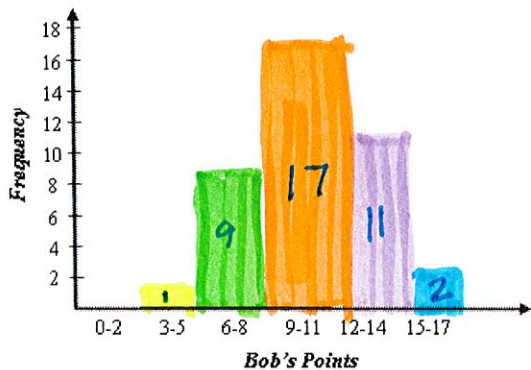
2. Describe Bob's data in terms of center, spread, and shape.

less spread, non-symmetric

Alan's Points per Game

1, 3, 0, 2, 4, 5, 7, 7, 8, 10, 4, 4, 3, 2, 5, 6, 6, 6, 8, 8, 10, 11, 11, 10, 12, 12, 5, 6, 8, 9, 10, 15, 10, 12, 11, 11, 6, 7, 7, 8

3. Create a histogram of both Bob's and Alan's data.



4. Describe the shape of the two histograms from problem #3.

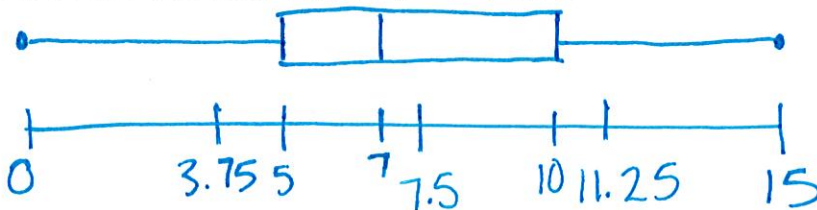
Bob - less spread, unimodal symmetric

Alan - more spread, unimodal symmetric

5. Use summary statistics to compare Bob and Alan's points per game.

	Min	Quartile 1 (Q1)	Median (Q2)	Quartile 3 (Q3)	Max	Mean	Range	IQR
Bob	5	8.5	10	12	15	10.4	10	3.5
Alan	0	5	7	10	15	7.175	15	5

Create a box plot and a dot plot displaying Alan's data.



6. Which graphical representation best displayed Bob's and Alan's data?

7. Based on the summary statistics is either friend a basketball star? Justify your answer.

1. The table shows the scores from the top 10 players of our Homecoming basketball game. Which player scored more than the upper quartile of the data?

- A. Matt
- B. Michael
- C. Jim
- D. Bobby

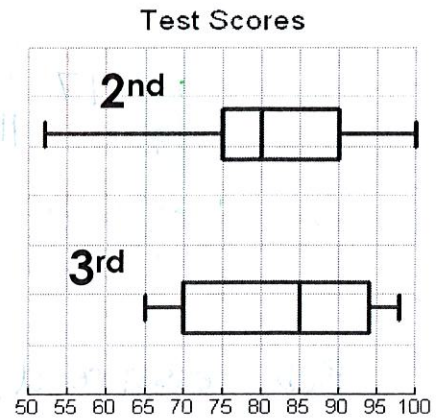
$Q3 = 15$

Player	Points	Player	Points
Michael	12	Dave	9
Brendan	6	Heath	15
Andrew	21	Jack	3
Jim	14	Bobby	10
Andre	5	Matt	18

For #2-3, use the graph to the right.

2. Which statement below is NOT true?

- A. 2nd period had the highest score on the test
- B. The median for 2nd period is 5 less than the median for 3rd
- C. The LQ for 2nd period is 5 less than LQ for 3rd period
- D. The UQ for 3rd period is 94



3. Fill in the blanks:

- The median for 2nd period is 80
- The median for 3rd period is 85
- The lowest score for 3rd period is 65
- The lower quartile for 2nd period is 75
- The spread of the middle 50% for 2nd period is 15

Sample A: 2, 4, 4, 4, 8, 8, 10, 12, 12, 14 Sample B: 0, 1, 4, 7, 9, 9, 10, 12, 12, 15

4. Which statement accurately compares the two samples?

- A. The mean for Sample A is 1 greater than the mean of Sample B.
- B. The mean for Sample B is 1 greater than the mean of Sample A.
- C. The mean for Sample A is 0.1 greater than the mean of Sample B.
- D. The mean for Sample B is 0.1 greater than the mean of Sample A.