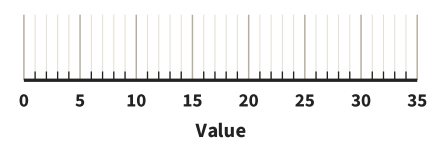


Box Plots *extend*

1

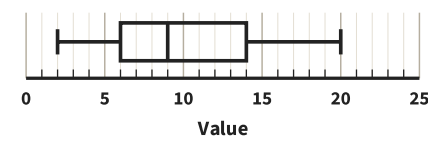
Seven numbers in order are $5, n, 11, 2n, 17, 3n - 2, 30$. The interquartile range is 14. Find n , then draw the box plot.



Answer _____

2

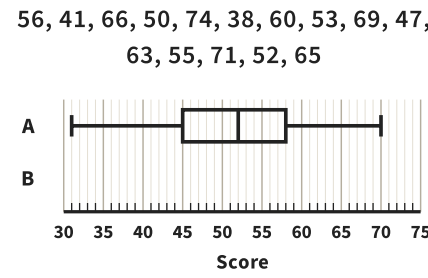
Seven whole numbers have this box plot. Their mean is 10. The two numbers the box plot does not show differ by 3. Find all seven numbers.



Answer _____

3

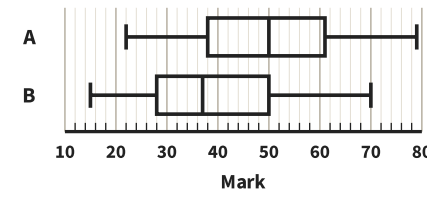
The box plot shows class A's test scores. Draw a box plot for class B's 15 scores. Which class did better? Compare them.



Answer _____

4

Group A has 40 students and group B has 60. The box plots show their marks. Estimate what percentage of all 100 students scored more than 50 marks.

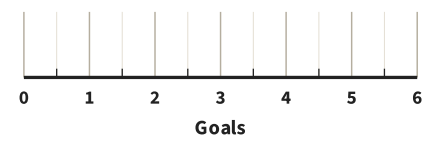


Answer _____

5

The table shows how many goals a hockey team scored in each of its 23 matches. Draw a box plot.

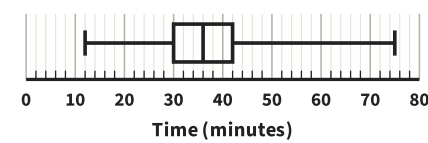
Goals	0	1	2	3	4	5
Matches	4	6	5	4	3	1



Box plot _____

6

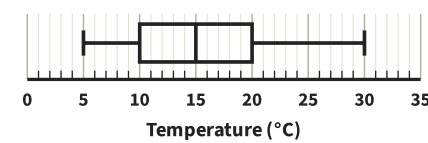
An outlier is a value more than $1.5 \times \text{IQR}$ above the upper quartile or below the lower quartile. The box plot shows a shop's delivery times. Is the longest time an outlier? Is the shortest?



Answer _____

7

The box plot shows noon temperatures in $^{\circ}\text{C}$ on 31 days. $F = 1.8C + 32$ changes $^{\circ}\text{C}$ to $^{\circ}\text{F}$. Find the median and the IQR in $^{\circ}\text{F}$. Why is the IQR not $1.8 \times 10 + 32$?



Answer _____

8

Seven different whole numbers have a range of 10. Prove that their interquartile range is at least 4 and at most 8.

Proof _____