

1984 Winter Olympics were held in Sarajevo, Yugoslavia. The table below lists the total number of gold, silver, and bronze medals won, by country.

List the data in order below:

1, 1, 2, 2, 3, 4, 4, 5, 6, 8, 8, 9, 13, 24, 25

COUNTRY	TOTAL MEDALS
Austria	1
Canada	4
Czechoslovakia	6
Finland	13
France	3
Germany, East	24
Germany, West	4
Great Britain	1
Italy	2
Japan	1
Liechtenstein	2
Norway	9
Sweden	8
Switzerland	5
USSR	25
United States	8
Yugoslavia	1

Find the 5 - number summary of the data.

Min: 1 Q1: 1.5 Med: 4 Q3: 8.5 Max: 25

Find the IQR.

$$8.5 - 1.5 = 7$$

What does IQR stand for?

Inter Quartile Range

Use the 1.5 IQR rules to find the outliers. SHOW ALL WORK!

$$7 \cdot 1.5 = 10.5$$

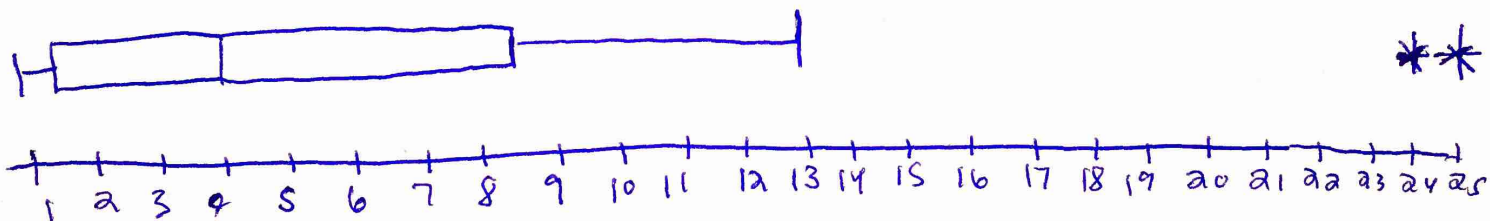
lower:  $1.5 - 10.5 = -9$  (less than)

upper:  $8.5 + 10.5 = 19$  (higher than)

Which countries are outliers?

East Germany & USSR

Construct a box plots of the data above on a number line.



Create a box plot from the set of numbers:

5, 40, 42, 46, 48, 49, 50, 50, 52, 53, 55, 56, 58, 75, 102

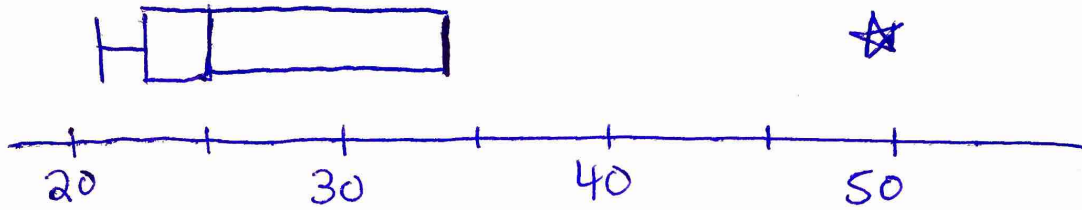
MIN: 5 MAX: 102 MED: 50 Q1: 46 Q3: 56  
 IQR: 10 (56 - 46) LOW OUTLIERS: 5 (50 - 15 = 35) HIGH OUTLIERS: 75, 102 (56 + 15 = 71)



★ Create a box plot from the set of numbers:

21, 23, 24, 25, 29, 33, 49

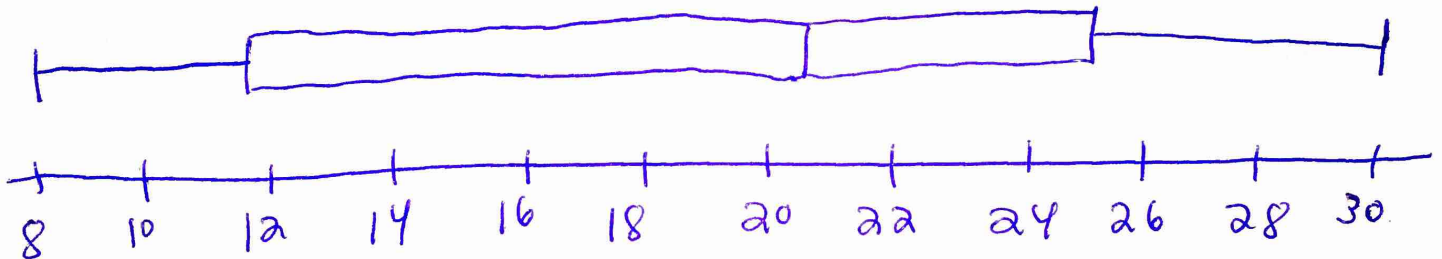
MIN 21      MAX 49      MED 25      Q1 23      Q3 33  
 IQR 10      LOW OUTLIERS none      HIGH OUTLIERS 49  
 $33 - 23 = 10$        $10 \cdot 1.5 = 15$        $23 - 15 = 8$        $33 + 15 = 48$



10. Create a box plot from the set of numbers:

23, 10, 13, 30, 26, 8, 25, 18

MIN 8      MAX 30      MED 20.5      Q1 11.5      Q3 25.5  
 IQR 14      LOW OUTLIERS none      HIGH OUTLIERS none  
 $25.5 - 11.5 = 14$        $11.5 - 21 = -9.5$        $25.5 + 21 = 46.5$



11. Create a box plot from the set of numbers:

10.2, 14.1, 14.4, 14.4, 14.4, 14.5, 14.5, 14.6, 14.7, 14.7, 14.7, 14.9, 15.1, 15.9, 16.4

MIN 10.2      MAX 16.4      MED 14.6      Q1 14.4      Q3 14.9  
 IQR .5      LOW OUTLIERS 10.2      HIGH OUTLIERS 15.9, 16.4  
 $14.9 - 14.4 = 0.5$        $1.5 \cdot 0.5 = 0.75$        $14.4 - 0.75 = 13.65$        $14.9 + 0.75 = 15.65$

