

# Center and Spread of Data

**Find the mode, median, mean, range, lower quartile, upper quartile, interquartile range, and mean absolute deviation for each data set.**

- 1) Shoe Size
- 6.5    7    7.5    8    8    8    9
- 10    10.5

- 2) Hits in a Round of Hacky Sack
- 2    3    3    3    4    4    6    7
- 12    18    19

- 3) Academy Awards

Movie	# Awards
The Greatest Show on Earth	2
Gentleman's Agreement	3
The Great Ziegfeld	3
The King's Speech	4

Movie	# Awards
No Country for Old Men	4
Unforgiven	4
It Happened One Night	5
Forrest Gump	6

Movie	# Awards
Mrs. Miniver	6
Lawrence of Arabia	7
On the Waterfront	8

- 4) Average Time to Maturity

Plant	Days
Bok Choi	45
Okra	55

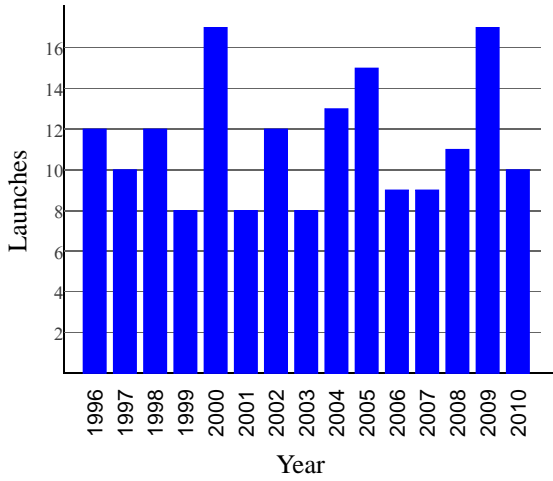
Plant	Days
Swiss Chard	60
Bell Pepper	75

Plant	Days
Sugar Baby Watermelon	75
Cantaloupe	80

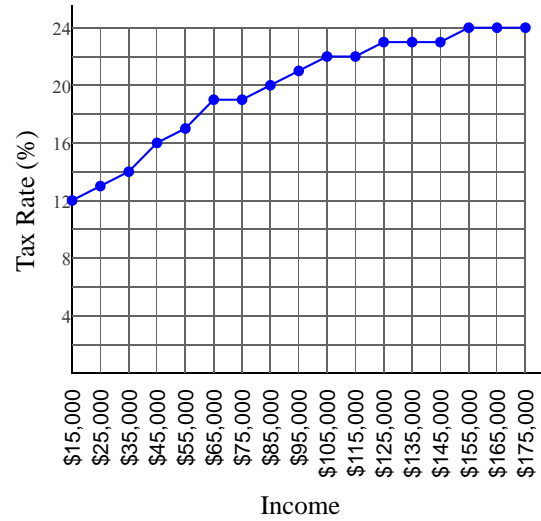
Plant	Days
Honeydew	80
Beefsteak Tomato	80

Plant	Days
Rutabaga	90
Tomatillo	100

5) European Spacecraft Launches



6) Federal Income Tax



7) Goals in a Hockey Game

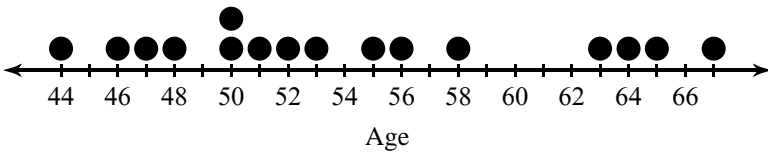
Goals	Frequency
2	1
4	1
5	4
7	4
8	2
9	3

8) Mountain Heights (ft)

Stem	Leaf
23	6 7 8 8 9
24	2 2 2 2 3 4 6 7 8 8
25	
26	3 7

Key: 24|2 = 24,200

9) US Senators When Assuming Office



## Center and Spread of Data

Find the mode, median, mean, range, lower quartile, upper quartile, interquartile range, and mean absolute deviation for each data set.

- 1) Shoe Size
- 6.5    7    7.5    8    8    8    9  
10    10.5

Mode = 8, Median = 8, Mean = 8.28,  
Range = 4,  $Q_1 = 7.25$ ,  $Q_3 = 9.5$ ,  
IQR = 2.25 and MAD = 1.04

- 2) Hits in a Round of Hacky Sack
- 2    3    3    3    4    4    6    7  
12    18    19

Mode = 3, Median = 4, Mean = 7.36,  
Range = 17,  $Q_1 = 3$ ,  $Q_3 = 12$ , IQR = 9  
and MAD = 4.89

- 3) Academy Awards

Movie	# Awards
The Greatest Show on Earth	2
Gentleman's Agreement	3
The Great Ziegfeld	3
The King's Speech	4

Movie	# Awards
No Country for Old Men	4
Unforgiven	4
It Happened One Night	5
Forrest Gump	6

Movie	# Awards
Mrs. Miniver	6
Lawrence of Arabia	7
On the Waterfront	8

Mode = 4, Median = 4, Mean = 4.73, Range = 6,  $Q_1 = 3$ ,  $Q_3 = 6$ , IQR = 3 and MAD = 1.52

- 4) Average Time to Maturity

Plant	Days
Bok Choi	45
Okra	55

Plant	Days
Swiss Chard	60
Bell Pepper	75

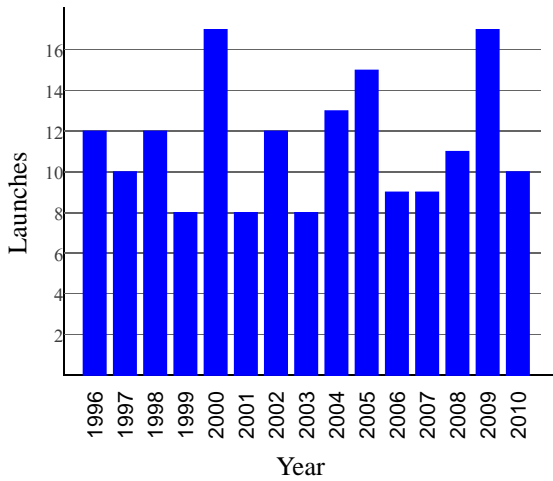
Plant	Days
Sugar Baby Watermelon	75
Cantaloupe	80

Plant	Days
Honeydew	80
Beefsteak Tomato	80

Plant	Days
Rutabaga	90
Tomatillo	100

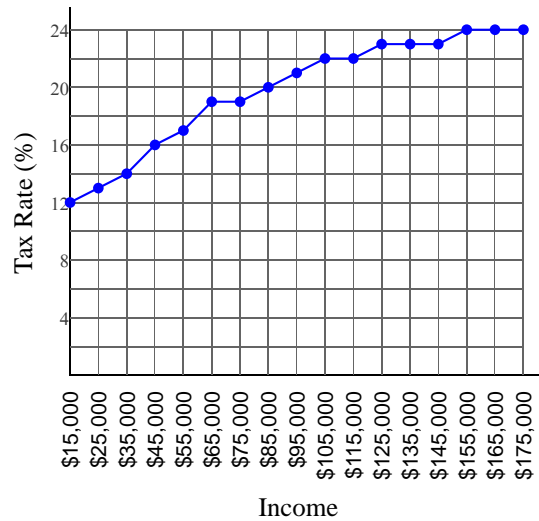
Mode = 80, Median = 77.5, Mean = 74, Range = 55,  $Q_1 = 60$ ,  $Q_3 = 80$ , IQR = 20 and MAD = 12.4

5) European Spacecraft Launches



Mode = 8 and 12, Median = 11,  
 Mean = 11.4, Range = 9,  $Q_1 = 9$ ,  $Q_3 = 13$ ,  
 IQR = 4 and MAD = 2.43

6) Federal Income Tax



Mode = 23 and 24, Median = 21,  
 Mean = 19.76, Range = 12,  $Q_1 = 16.5$ ,  
 $Q_3 = 23$ , IQR = 6.5 and MAD = 3.34

7) Goals in a Hockey Game

Goals	Frequency
2	1
4	1
5	4
7	4
8	2
9	3

Mode = 5 and 7, Median = 7,  
 Mean = 6.47, Range = 7,  $Q_1 = 5$ ,  
 $Q_3 = 8$ , IQR = 3 and MAD = 1.71

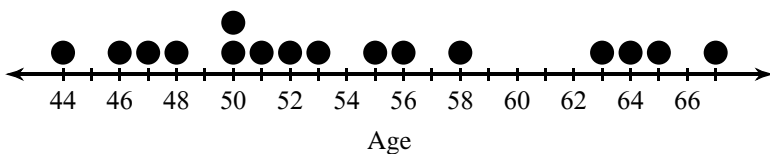
8) Mountain Heights (ft)

Stem	Leaf
23	6 7 8 8 9
24	2 2 2 2 3 4 6 7 8 8
25	
26	3 7

Key: 24|2 = 24,200

Mode = 24,200,  
 Median = 24,200,  
 Mean = 24,482.35,  
 Range = 3,100,  $Q_1 = 23,850$ ,  
 $Q_3 = 24,750$ , IQR = 900 and  
 MAD = 588.93

9) US Senators When Assuming Office



Mode = 50, Median = 52.5, Mean = 54.31, Range = 23,  
 $Q_1 = 49$ ,  $Q_3 = 60.5$ , IQR = 11.5 and MAD = 5.98