

Histograms
Unit 8: Statistics

Draw a histogram for each data set.

1.

Shoe Size

9	7	10	8	8.5	6
6	8	10	7	10.5	8
7.5	7	9	8.5		

2.

Games per World Series

7	6	4	7	6	6
4	4	4	4	7	5
5	7	6	5	5	4
5	7	4	5	7	

3.

Boiling Point

Substance	°C	Substance	°C	Substance	°C
Radium	1,140	Gold	2,856	Magnesium	11,09
Lead	1,750	Mercury	56.7	Nickel	2,913
Carbon	4,827	Sulphur	444.7	Uranium	4,131
Ethanol	78.4	Iron	2,862	Aluminum	2,519
Sulphuric Acid	33	Nitric Acid	3	Iodine	184.3
Sodium	882.8	Plutonium	3232		

Draw a histogram for each data set.

4.

Campers at National Parks

Park	Tent Campers	Park	Tent Campers	Park	Tent Campers
Joshua Tree	172,008	Bighorn Canyon	2958	Obed W&SR	1,020
Cumberland Gap	2,644	Rocky Mountain	75,822	Chesapeake & Ohio Canal	4,463
Grand Teton	10	Buffalo River	19,081	Shenandoah	86,195
Yosemite	436,603				

5.

Age at First Job

17	18	17	13	16	15
15	17	18	14	15	17
13	17	16	18	15	16
22	14	13	16	17	

6.

Melting Point

Substance	°C	Substance	°C	Substance	°C
Uranium	1,132	Phosphorus	44.2	Plutonium	639.4
Iron	1,538	Platinum	1,768	Nickel	1,455
Silicon	1,414	Argon	189.2	Magnesium	650
Calcium	842	Water	0	Iodine	113.7
Zinc	419.5	Potassium	63.4	Cobalt	1,495
Tin	231.9	Glycerol	17.8	Silver	961.8
Lead	327.5	Titanium	1,668	Sulphur	115.2
Aluminum	660.3	Sodium	97.7		

① List data least to greatest.

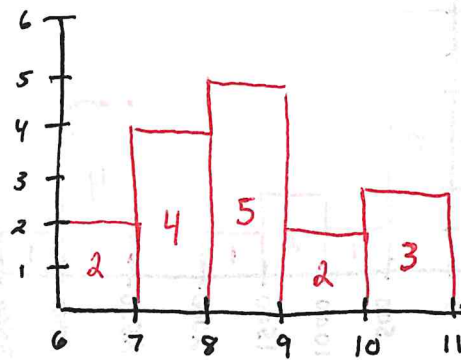
6, 6, 7, 7, 7, 7.5, 8, 8, 8, 8.5, 8.5, 9, 9, 10, 10, 10.5

$$\text{Max} = 10.5$$

$$\text{min} = 6$$

$$\text{Range} = 10.5 - 6 = 4.5$$

Range is small enough to have the base numbers go by 1's to 11



② List data least to greatest.

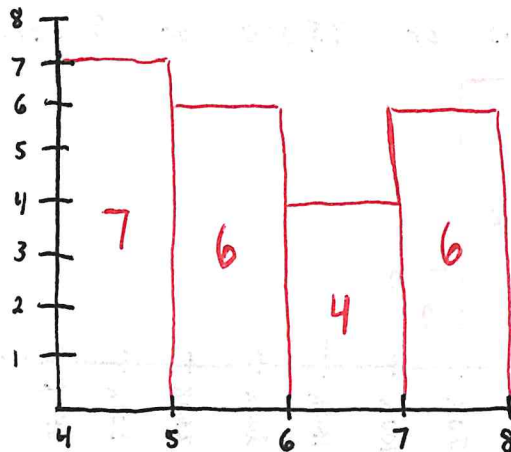
4, 4, 4, 4, 4, 4, 4, 5, 5, 5, 5, 5, 5, 6, 6, 6, 6, 7, 7, 7, 7, 7, 7

$$\text{Max} = 7$$

$$\text{min} = 4$$

$$\text{Range} = 7 - 4 = 3$$

Range is small enough to have base numbers go by 1's to 8.



③ List data least to greatest.

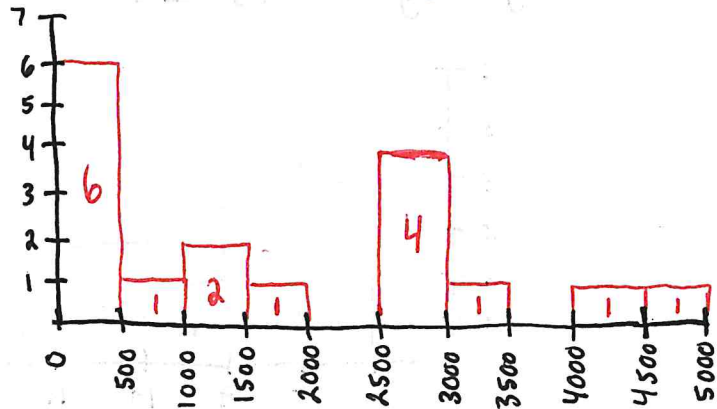
3, 33, 56.7, 78.4, 184.3, 444.7, 882.8, 1109, 1140, 1750, 2519,
2856, 2862, 2913, 3232, 4131, 4827

$$\text{Max} = 4827$$

$$\text{min} = 3$$

$$\text{Range} = 4827 - 3 = 4824$$

Start at 0 and go to 5000. We can do 10 sections of 500 units each.



④ List data least to greatest.

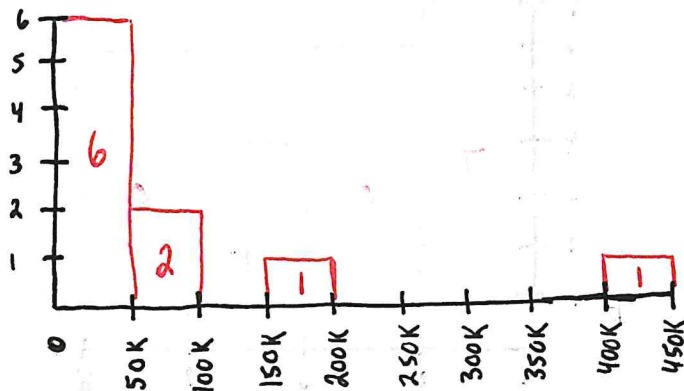
10, 1020, 2644, 2958, 4463, 19081, 75822, 86195,
172008, 436603

$$\text{Max} = 436603$$

$$\text{min} = 10$$

$$\text{Range} = 436603 - 10 = 436,593$$

Start at 0 and go to 450,000. We could do 10 sections of 45,000 or 9 sections of 50,000.



⑤ List data least to greatest.

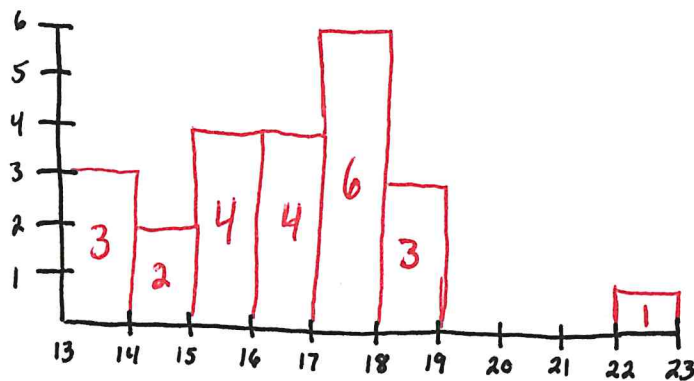
13, 13, 13, 14, 14, 15, 15, 15, 15, 16, 16, 16, 16, 17, 17, 17, 17, 17, 17,
18, 18, 18, 22

$$\text{Max} = 22$$

$$\text{min} = 13$$

$$\text{Range} = 22 - 13 = 9$$

Start at 13 and go until the base numbers reach 23.



⑥ List data least to greatest.

0, 17.8, 44.2, 63.4, 97.7, 113.7, 115.2, 189.2, 231.9, 327.5, 419.5,
639.4, 650, 660.3, 842, 961.8, 1132, 1414, 1455, 1495, 1538, 1668, 1768

$$\text{Max} = 1768$$

$$\text{min} = 0$$

$$\text{Range} = 1768 - 0 = 1768$$

Start with 0 and go until 1800. We could do 10 sections of 18, or 9 sections of 200.

