

# Central Tendency and Spread Homework

Name \_\_\_\_\_

Date \_\_\_\_\_

Find the mean, median, mode, and range of the data. Round to the nearest hundredth, if necessary.

1. 10, 7, 13, 10, 8

Mean:  $\frac{10+7+13+10+8}{5} = \frac{48}{5} = \boxed{9.6}$

med: 7, 8, 10, 10, 13

mode: 10

Range:  $13 - 7 = \boxed{6}$

2. 110, 114, 104, 108, 106

mean:  $\frac{110+114+104+108+106}{5} = \frac{542}{5} = \boxed{\bar{x} = 108.4}$

med: ~~104, 106~~ 108, ~~110, 114~~

mode: none

Range:  $114 - 104 = \boxed{10}$

3. 15, 17, 15, 17, 21, 17, 15, 23

mean:  $\frac{15+17+15+17+21+17+15+23}{8} = \frac{140}{8} = \boxed{\bar{x} = 17.5}$

med: 15, 15, 15, 17, 17, 17, 21, 23

mode: 15 & 17 17

Range:  $23 - 15 = \boxed{8}$

4. ~~50.8, 51.6, 51.9, 52, 52.5, 52.8, 53.1~~

mean:  $\frac{50.8+51.6+51.9+52+52.5+52.8+53.1}{7} = \frac{364.7}{7} = \boxed{\bar{x} = 52.1}$

med: 52

mode: none

Range:  $53.1 - 50.8 = \boxed{2.3}$

Find the 5 number summary and the IQR of the data. Round to the nearest hundredth, if necessary.

5. 10, 7, 13, 10, 8

7 | 8 | 10 | 10 | 13  
7.5                      11.5

IQR:

$11.5 - 7.5 = \boxed{4}$

- min: 7
- Q<sub>1</sub>: 7.5
- med: 10
- Q<sub>3</sub>: 11.5
- max: 13

6. 110, 114, 104, 108, 106

min: 104  
Q<sub>1</sub>: 105  
med: 108  
Q<sub>3</sub>: 112  
max: 114

105 112  
104 | 106, 108 | 110 | 114

IQR:  
 $112 - 105 = 7$

7. 87, 75, 85, 77, 74, 82

min: 74  
Q<sub>1</sub>: 79  
med: 79.5  
Q<sub>3</sub>: 85  
max: 87

74 | 79, 79.5 | 82 | 85 | 87

IQR:  
 $85 - 79 = 10$

8. 15, 17, 15, 17, 21, 17, 15, 23

Min: 15  
Q<sub>1</sub>: 15  
med: 17  
Q<sub>3</sub>: 19  
max: 23

15 19  
~~15, 15~~ | 15, 17 | 17, 17 | 21, 23

IQR: 19  
 $19 - 15 = 4$

9. ~~40, 46, 41, 46, 49, 49, 46, 44, 44~~

min: 40  
Q<sub>1</sub>: 42.5  
med: 46  
Q<sub>3</sub>: 47.5  
max: 49

~~40, 41, 44, 44~~ | 46 | ~~46, 46, 47, 49~~  
42.5 47.5

IQR:  
 $47.5 - 42.5 = 5$

10. 50.8, 51.6, 51.9, 52, 52.5, 52.8, 53.1

Min: 50.8  
Q<sub>1</sub>: 51.6  
med: 52  
Q<sub>3</sub>: 52.8  
max: 53.1

IQR:  
 $52.8 - 51.6 = 1.2$