

Math 105 Problem Set 2: Measures of Center (Some Answers and hints)

1. (a) 86 (b) 98.75 (c) 293
(d) ≈ 76.8 (e) 11 (f) ≈ 87.88
2. 81, 82, 98
3. (a) ≈ 76.67 (b) ≈ 3.92
4. (a) Median = 22 (b) Midrange = 17
5. (a) mean (b) median, mode (c) mode
(d) mean (e) median (f) median
(g) mode (h) mean (i) median
(j) median (k) mean
6. Mode = 41 & 45
Median = 43.5
Range = 19
Midrange = 41.5
Range and midrange are not resistant
7. Mean = 35
Median = 30
Mode = 30
8. Answers vary. Be sure that there are 8 marks/data for each solution and that the sum of the data is 24.
9. (a) Hint: make the 6th data value considerably larger than the first 5 data values
(b) Answers vary.
(c) Hint: Be sure the sum of the 6 data values is 24 and that the sum of the middle two data values when arranged in order is 8.
10. (a) 29 (b) $\approx 79.3\%$ (c) 5
(d) 4 (e) ≈ 4.48 (f) Be sure to label axes.
11. Mean = 3, Median = 2 much more discussion / illustration required
12. (a) Hint: Include 2 data values < 29 and 2 data values > 29
(b) Hint: Include 2 data values < 29, 2 data values > 29 and one data value = 29
(c) 39
(d) Hint: Include 2 data values < 29, 2 data values > 29 and the sum of the 4 data value = 215
13. All are possible. Be creative
14. Discussion. Interesting problems think it out 😊