

Percentiles, Quartiles, and Deciles

California Residents Life Span

The following data is representing a sample of California Residents lifespan in years.

68, 45, 80, 34, 55, 67, 68, 88, 90, 25, 36, 45, 52, 68, 65, 70, 72, 45, 52, 89, 97, 64

Determine the following.

1. The percentile of the data value 52.
2. The percentile of the data value 70.
3. The percentile of the data value 45.
4. D_4 ?
5. Q_1 ?
6. D_9 ?
7. Q_2 ?
8. P_{55} ?
9. P_{10} ?
10. Q_3 ?
11. Range.
12. Inter quartile Range.
13. 10-90 Percentile Range

Sleep Time

The following data represents the amount of sleep time in hours for college students.

6, 0, 7, 4, 6, 7, 7, 6, 5, 8, 10, 4, 8, 5, 6, 7, 6, 7, 7, 5, 8, 6, 0, 7, 5, 4

Determine the following.

14. The percentile of the data value 8.
15. The percentile of the data value 6.
16. The percentile of the data value 4.
17. D_1 ?
18. Q_1 ?
19. D_9 ?
20. Q_2 ?
21. P_{62} ?
22. P_{38} ?
23. Q_3 ?
24. Range.
25. Inter quartile Range.
26. 10-90 Range

Annual Rainfall (inches) for St. Vegas

The following table illustrates the annual rainfall in inches for the fictional town of St. Vegas. Answer the following questions.

| Year | Inches |
|------|--------|
| 2000 | 14.7 |
| 2001 | 12.8 |
| 2002 | 13.6 |
| 2003 | 6.5 |
| 2004 | 12.2 |
| 2005 | 10.8 |
| 2006 | 16.5 |
| 2007 | 13.2 |
| 2008 | 7.8 |
| 2009 | 14.9 |
| 2010 | 22.3 |
| 2011 | 5.4 |
| 2012 | 10.9 |

Determine the following.

27. The percentile of the data value 12.8
28. The percentile of the data value 14.9
29. The percentile of the data value 7.8
30. D_1 ?
31. Q_1 ?
32. D_7 ?
33. Q_2 ?
34. P_{55} ?
35. P_{90} ?
36. Q_3 ?
37. Range.
38. Inter quartile Range.
39. 10-90 Range