Percentile Rank for Ungrouped Data

The percentile corresponding to a given value X is computed by:

$$\text{Percentile} = \frac{\text{number of values below } X + 0.5}{\text{total number of values}} \times 100$$

Practice Exercises

Solve the following problem completely.

Given 50 multiple-choice items in their final test in Mathematics, the scores of 16 students are the following:

28	46	22	20	18	34	36	35
45	48	16	22	27	31	30	25

Calculate the percentile rank of the student who obtained each score.

1. 20   4. 45
2. 31
3. 28   5. 36

Problem Set

The scores of 22 students in a Math quiz are: 22, 23, 21, 25, 24, 22, 18, 24, 24, 26, 24, 20, 22, 22, 32, 15, 24, 29, 27, 22, 24, and 28.

Calculate the percentile rank of the student who obtained each score.

1. 21   4. 25
2. 20
3. 18   5. 28