

4. The following are reading comprehension scores for a third-grade class of 18 students:

5, 3, 5, 4, 5, 5, 4, 5, 2

4, 5, 3, 5, 4, 5, 5, 3, 5

- Place the scores in a frequency distribution table.
- Sketch a histogram showing the distribution.
- Using your graph, answer the following questions:
 - What is the shape of the distribution?
 - If a score of $X = 3$ is considered typical for third-graders, how would you describe the general reading level for this class?

6. For the set of scores shown in the following frequency distribution table,
- How many scores are in the distribution? ($N = ?$)
 - Find ΣX for this set of scores.

X	f
4	2
3	4
2	5
1	3

9. Find N , ΣX , and ΣX^2 for the set of scores in the following frequency distribution table:

X	f
5	1
4	3
3	5
2	2
1	2

12. For the following set of scores:

5, 6, 2, 3, 6, 5, 6, 4, 1, 5, 6, 3, 4

- Construct a frequency distribution table.
- Sketch a polygon showing the distribution.
- Describe the distribution using the following characteristics:
 - What is the shape of the distribution?
 - What score best identifies the center (average) for the distribution?
 - Are the scores clustered together, or are they spread out across the scale?

14. Place the following 28 scores in a grouped frequency distribution table using
- An interval width of 2.
 - An interval width of 5.

23, 12, 16, 16, 17, 19, 28

20, 14, 21, 18, 24, 29, 24

18, 21, 22, 27, 21, 25, 19

22, 23, 21, 30, 27, 23, 18



19. Find each of the requested values for the distribution of scores shown in the following frequency distribution table:

X	f
14-15	2
12-13	5
10-11	6
8-9	7
6-7	4
4-5	1

- What is the 20th percentile?
- What is the percentile rank for $X = 11.5$?
- Use interpolation to find the 60th percentile.
- Use interpolation to find the percentile rank for $X = 6$.

22. Using the following frequency distribution, find each of the percentiles and percentile ranks requested:

X	f	cf	$c\%$
6	2	20	100%
5	2	18	90%
4	4	16	80%
3	6	12	60%
2	4	6	30%
1	2	2	10%

- What is the 60th percentile?
- What is the percentile rank for $X = 5.5$?
- Use interpolation to find the 20th percentile.
- Use interpolation to find the percentile rank for $X = 5$.
- What is the minimum score needed to be in the top 25% of this distribution? That is, find the 75th percentile.