



# Math Worksheet for 6th Grade

## Dot plots & frequency tables

Name: \_\_\_\_\_

Due Date: \_\_\_\_\_

Teacher: \_\_\_\_\_

Parent Sign: \_\_\_\_\_

### Questions

1. Which of the following is a statistical question? a) How tall is my teacher? b) How tall are the students in my class?
2. Rewrite this non-statistical question to make it statistical: "How many pets do you have?"
3. Is this a statistical question? "How long does it take to walk from home to school?" Explain briefly.
4. For the data set of test scores: 8, 9, 7, 8, 10, 7, 9 — make a dot plot by listing how many dots (counts) are at each score from 7 to 10.
5. From the same data in Q4, make a frequency table showing score and frequency.
6. Using the data in Q4, what is the mode?
7. Using the data in Q4, what is the median?
8. Using the data in Q4, what is the range?
9. Construct a dot plot counts list for these ages (in years): 11, 12, 11, 10, 12, 12, 11.
10. From Q9, how many students are 12 years old?
11. A survey asks 20 students how many books they read last month. The numbers: 2,1,3,0,4,2,1,2,3,1,0,2,1,3,2,2,1,0,1,3. Create a frequency table for number of books (0–4).
12. From Q11, which number of books is most common?
13. From Q11, how many students read at least 2 books?
14. A class recorded the number of pets for each of 12 students: 0,1,2,1,3,2,2,1,0,1,2,1. Make a frequency table and state the mode.
15. Use the data in Q14 to draw (describe) a dot plot counts for pets 0–3.
16. The heights in inches of 10 plants are: 5,7,6,6,8,5,7,6,6,5. Create a frequency table of heights.
17. From Q16, how many plants are taller than 6 inches?
18. Given this dot plot count by score: 4 dots at 2, 6 dots at 3, 3 dots at 4 — write the raw data list.
19. From Q18, what is the total number of data points?
20. From Q18, find the mean (average) of the data (round to two decimals).
21. A teacher records minutes students read each day for a week: 15, 20, 15, 10, 20, 25, 15. Make a dot plot counts for minutes 10–25 (list counts at each value).
22. From Q21, what is the median reading time?
23. A grocery store records how many apples were sold each day for 7 days: 12,15,9,12,10,12,14. Make a frequency table and identify the mode.
24. From Q23, what is the range?
25. A survey asks students their favorite fruit. Results: Apple, Banana, Apple, Orange, Banana, Apple, Grape, Banana. Create a frequency table for fruit choices.
26. From Q25, which fruit(s) are tied for second most popular?
27. Build a dot plot counts list for the number of goals scored by 9 players: 0,1,2,2,3,1,0,2,1.



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28. From Q27, how many players scored more than 1 goal?
29. The weights (in kg) of 8 backpacks rounded to nearest kg: 4,5,6,5,4,5,7,5. Make a frequency table.
30. From Q29, what is the most common weight?
31. Create a frequency table with tallies for the exam scores: 70,80,70,90,80,70,100,90,80,70. Use scores as-is (70, 80, 90, 100).
32. From Q31, how many students scored 80 or more?
33. A dot plot shows bus arrival times (minutes after 8:00): one dot at 0, two dots at 2, three dots at 5, four dots at 7. Write the list of times.
34. From Q33, what time was the most common arrival (mode)?
35. Students measure the lengths (cm) of paper strips: 10,12,11,12,13,11,12,10,11,12. Make a frequency table.
36. From Q35, what is the median length?
37. A class records the number of siblings for each of 15 students: 2,1,0,1,3,2,2,1,0,1,1,2,3,2,1. Create a frequency table (0–3).
38. From Q37, what proportion of students have exactly 1 sibling? Give a fraction.
39. The number of minutes students spend on homework one night: 30,45,30,60,45,30,15,45. Make a dot plot count list.
40. From Q39, how many students did at least 30 minutes of homework?
41. Survey: Out of 25 students, the number of school lunches bought each week: 3,4,2,3,3,5,4,3,2,3,4,3,3,5,2,3,3,4,3,2,3,4,3,3,2. Make a frequency table for 2–5 lunches.
42. From Q41, how many students buy exactly 3 lunches per week?
43. You are given a frequency table: Score — Frequency: 1 — 2, 2 — 4, 3 — 5, 4 — 3. Reconstruct the raw data list.
44. From Q43, what is the median?
45. A teacher asks: "How many minutes do you practice piano each day?" Which of these is a statistical question: a) "How many minutes did Sam practice today?" b) "How many minutes do students practice each day?" Explain.
46. A dot plot (counts) for pages read: 1 dot at 5 pages, 3 dots at 10 pages, 2 dots at 15 pages. How many total pages were read by all students combined? (Multiply counts by page amounts and sum.)
47. Convert this raw data into a frequency table (value : frequency): 5,5,6,7,5,6,7,8,6,5.
48. From Q47, what is the mode and how many times does it occur?
49. A survey of 30 students records how many times they rode a bike last month. The frequency table is: 0—5, 1—10, 2—8, 3—4, 4—3. How many students rode a bike at least once?
50. Given the dot plot counts: value 1 has 4 dots, value 2 has 6 dots, value 3 has 0 dots, value 4 has 2 dots. What is the mean of the data?