Name: Due Date: Teacher: Parent Sign:

1. The number of minutes each of 20 students took to complete a reading quiz:

12, 9, 15, 18, 14, 11, 13, 20, 17, 16, 12, 10, 22, 8, 19, 14, 15, 13, 11, 21.

Create a histogram using class intervals 8-10, 11-13, 14-16, 17-19, 20-22. (Give the frequency for each interval.)

2. A jar contains 30 marbles with the following diameters in mm:

3, 4, 3, 5, 4, 6, 7, 5, 3, 4, 6, 5, 4, 7, 6, 5, 4, 3, 6, 5, 4, 3, 5, 6, 4, 5, 7, 3, 4, 5.

Choose class intervals of width 1 mm starting at 3 mm (3-3.9, 4-4.9, etc.) and make a histogram frequency table.

3. Temperatures (degC) recorded over 24 hours:

12, 13, 14, 16, 15, 17, 18, 19, 20, 18, 17, 16, 15, 14, 13, 12, 11, 10, 12, 13, 14, 15, 16, 17.

Create a histogram with intervals 10-11, 12-13, 14-15, 16-17, 18-19, 20-21.

4. Scores (out of 50) for 25 students:

42, 38, 45, 47, 40, 39, 50, 44, 43, 36, 41, 37, 48, 46, 35, 34, 49, 40, 42, 38, 37, 39, 41, 43, 44.

Make a histogram with class intervals 34-36, 37-39, 40-42, 43-45, 46-48, 49-51.

5. Ages of children at a summer camp (30 children):

9,10,11,12,11,10,9,8,12,11,10,9,8,9,10,11,12,8,9,10,11,12,9,10,8,11,12,9,10,11.

Use intervals 8-8.9, 9-9.9, 10-10.9, 11-11.9, 12-12.9 and make a frequency table for a histogram.

6. A school's weekly minutes of library use by 18 students:

5, 10, 7, 12, 15, 8, 9, 6, 13, 11, 7, 6, 8, 10, 12, 13, 9, 5.

Create a histogram using intervals 5-7, 8-10, 11-13, 14-16.

7. The shoe sizes of 20 students:

3,4,4,5,6,6,5,4,3,4,5,6,7,5,4,3,6,5,4,5.

Make a histogram with class intervals 3-3.9, 4-4.9, 5-5.9, 6-6.9, 7-7.9.

8. Heights (cm) of 15 plants:

10, 12, 11, 13, 12, 14, 15, 16, 13, 11, 12, 14, 15, 13, 12.

Choose intervals of width 2 cm (10-11, 12-13, 14-15, 16-17) and give frequencies for a histogram.

9. Number of pets per family in a neighborhood (18 families):

0,1,2,1,3,2,1,0,1,2,3,1,2,0,1,1,2,3.

Create a histogram using intervals 0-0.9, 1-1.9, 2-2.9, 3-3.9.

10. Times (minutes) students spent on homework one night (22 students):

20, 25, 30, 18, 22, 27, 24, 26, 28, 21, 23, 25, 29, 30, 19, 20, 22, 24, 26, 28, 27, 23.

Make a histogram using class intervals 18-20, 21-23, 24-26, 27-29, 30-32.

11. Number of books read by each of 16 students in a month:

0,1,2,3,2,1,4,2,3,1,2,1,0,2,3,2.

Create a histogram with intervals 0-0.9, 1-1.9, 2-2.9, 3-3.9, 4-4.9.

12. Rainfall (mm) over 14 days:

2,0,5,8,10,3,0,1,4,6,8,7,9,2.

Use intervals 0-2, 3-4, 5-6, 7-8, 9-10 and make a histogram frequency table.

13. Class of 24 students took a short test. Their percentages:

55, 60, 62, 70, 68, 72, 64, 58, 61, 66, 59, 63, 65, 67, 71, 73, 74, 56, 57, 60, 62, 64, 69, 70.

Create a histogram with intervals 55-59, 60-64, 65-69, 70-74.

14. Number of minutes each student practiced piano:

8, 12, 15, 20, 18, 17, 10, 9, 16, 14, 13, 11.

Choose intervals of width 4 (8-11, 12-15, 16-19, 20-23) and give frequencies.

15. Count the number of cars passing a street each hour for 10 hours:

12, 18, 15, 20, 22, 19, 17, 16, 14, 13.

Create a histogram using intervals 12-14, 15-17, 18-20, 21-23.

16. Weighing 20 apples (grams):

95,100,98,102,97,99,101,100,96,98,97,99,100,101,102,95,96,98,99,100.

Make a histogram with intervals 95-96.9, 97-98.9, 99-100.9, 101-102.9.

17. A teacher records 28 quiz scores (out of 10):

10,9,8,7,10,9,6,8,7,9,8,10,9,7,8,6,10,9,8,7,8,9,10,6,7,8,9,10.

Use intervals 6-6.9, 7-7.9, 8-8.9, 9-9.9, 10-10.9 and give frequencies.

18. Number of goals scored in 20 soccer matches:

0,1,2,3,1,2,1,0,4,2,3,1,0,1,2,3,1,2,1,0.

Create a histogram with intervals 0-0.9, 1-1.9, 2-2.9, 3-3.9, 4-4.9.

19. Ages of volunteers at an event (12 people):

18,20,19,21,22,18,19,20,21,22,20,19.

Choose intervals 18-18.9, 19-19.9, 20-20.9, 21-21.9, 22-22.9 and make a histogram table.

20. Distances (km) students biked to school (15 students):

0.5, 1.2, 0.8, 1.5, 2.0, 0.7, 1.0, 0.9, 1.3, 1.1, 0.6, 1.4, 0.8, 1.6, 2.2.

Use class width 0.5 km with intervals 0.5-0.99, 1.0-1.49, 1.5-1.99, 2.0-2.49 and give frequencies.

21. A bag contains 40 candies; their weights in grams (rounded):

2,3,2,4,3,2,3,4,3,2,3,2,4,3,2,3,2,3,4,3,2,2,3,3,4,2,3,2,3,4,3,2,3,2,3,4,3,2,3,2.

Make a histogram with intervals 2-2.49, 2.5-2.99, 3-3.49, 3.5-3.99, 4-4.49 (or similar).

22. Daily number of texts sent by a student during a week:

Monday-7, Tuesday-9, Wednesday-12, Thursday-10, Friday-14, Saturday-20, Sunday-18.

Create a histogram using intervals 7-9, 10-12, 13-15, 16-18, 19-21.

23. Heights (inches) of 18 stuffed toys:

5,6,7,8,6,5,7,6,8,9,7,6,5,6,7,8,6,5.

Use intervals 5-5.9, 6-6.9, 7-7.9, 8-8.9, 9-9.9 and give frequencies.

24. A survey recorded how many siblings 25 students have (numbers from 0 to 4). The raw list:

1,0,2,1,3,2,1,4,1,2,0,1,2,1,3,2,1,1,0,2,1,3,1,2,1.

Create a histogram with intervals 0-0.9, 1-1.9, 2-2.9, 3-3.9, 4-4.9.

25. Collect the score differences (points) on a dart board from center for 16 throws (rounded):

1,2,3,1,1,4,2,3,2,1,3,4,2,1,2,3.

Make a histogram using intervals 1-1.9, 2-2.9, 3-3.9, 4-4.9.

INTERPRETING HISTOGRAMS (26-50)

For these, read the histogram data described and answer the questions that follow. (Each description lists class intervals and bar heights = frequencies.)

26. Histogram data (students' test scores): 50-59: 3, 60-69: 8, 70-79: 10, 80-89: 6, 90-99: 3.

a) How many students took the test? b) Which score interval has the most students?

27. Shoe size histogram: 3-3.9: 2, 4-4.9: 6, 5-5.9: 8, 6-6.9: 3, 7-7.9: 1.

How many students have shoe size 5 or 6? (Count both 5-5.9 and 6-6.9.)

28. Weekly TV hours histogram: 0-4: 5, 5-9: 9, 10-14: 6, 15-19: 0.

a) What is the total number of people? b) How many watch 5-14 hours?

29. Heights of plants histogram (cm): 10-12: 4, 13-15: 7, 16-18: 3, 19-21: 1.

Which class is the mode (most common)? How many plants are taller than 15 cm?

30. A histogram shows ages at a club: 8-9: 5, 10-11: 12, 12-13: 9, 14-15: 4.

a) How many members are under 12? b) What percent of members are 12 or older? (Round to nearest whole percent.)

31. Test score histogram: 0-19: 1, 20-39: 3, 40-59: 6, 60-79: 10, 80-100: 5.

Find the median class (the class that contains the median score) for the group.

32. A histogram of lunch preferences by number choosing each amount of time spent eating: 5-9 min: 7, 10-14 min: 11, 15-19 min: 6, 20-24: 1.

How many students in total? How many spend at least 10 minutes?

33. Running times histogram (minutes): 12-14: 2, 15-17: 6, 18-20: 10, 21-23: 2.

a) Which interval has at least half the runners? b) How many ran under 18 minutes?

34. Histogram of weekly pocket money (dollars): 0-2: 3, 3-5: 7, 6-8: 5, 9-11: 2.

What is the range of the data covered by these classes? How many kids get less than $6?

35. Histogram shows number of pets: 0-0.9: 4, 1-1.9: 10, 2-2.9: 6, 3-3.9: 0.