NAME _____ DATE _____ PERIOD ____

12-7 Skills Practice

The Normal Distribution

Determine whether the data in each table appear to be *positively skewed, negatively skewed, or normally distributed.*

1.

Miles Run	Track Team Members
0–4	3
5–9	4
10–14	7
15–19	5
20–23	2

normally distributed

2.

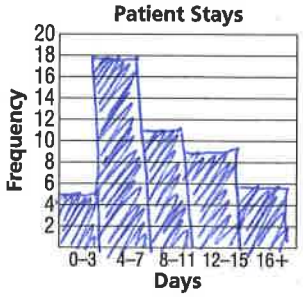
Speeches Given	Political Candidates
0–5	1
6–11	2
12–17	3
18–23	8
24–29	8

negatively skewed

For Exercises 3 and 4, use the frequency table that shows the average number of days patients spent on the surgical ward of a hospital last year.

Days	Number of Patients
0–3	5
4–7	18
8–11	11
12–15	9
16+	6

3. Make a histogram of the data.



4. Do the data appear to be *positively skewed*, *negatively skewed*, or *normally distributed*? Explain.

positively skewed - high to the left and a tail to the right

DELIVERY For Exercises 5–7, use the following information.

The time it takes a bicycle courier to deliver a parcel to his farthest customer is normally distributed with a mean of 40 minutes and a standard deviation of 4 minutes.

5. About what percent of the courier's trips to this customer take between 36 and 44 minutes?

68%.

6. About what percent of the courier's trips to this customer take between 40 and 48 minutes?

47.5%.

7. About what percent of the courier's trips to this customer take less than 32 minutes?

2.5%.

TESTING For Exercises 8–10, use the following information.

The average time it takes sophomores to complete a math test is normally distributed with a mean of 63.3 minutes and a standard deviation of 12.3 minutes.

8. About what percent of the sophomores take more than 75.6 minutes to complete the test?

16%.

9. About what percent of the sophomores take between 51 and 63.3 minutes?

34%.

10. About what percent of the sophomores take less than 63.3 minutes to complete the test?

50%.