

10.3

Shapes of Distributions

For use with Exploration 10.3

Learning Target: Describe and compare shapes of distributions.

- Success Criteria:**
- I can explain what it means for a distribution to be skewed left, skewed right, or symmetric.
 - I can use data displays to describe shapes of distributions.
 - I can use shapes of distributions to compare data sets.

1 EXPLORATION: Describing Shapes of Distributions

Work with a partner. The lists show the first three digits and last four digits of several phone numbers in the contact list of a cell phone.

- a. Compare and contrast the distribution of the last digit of each phone number to the distribution of the first digit of each phone number. Describe the shapes of the distributions.

538-	664-	-7253	-8678
438-	664-	-7290	-2063
664-	538-	-7200	-2911
761-	855-	-1192	-2103
868-	664-	-1142	-4328
735-	538-	-3500	-7826
694-	654-	-2531	-7957
599-	654-	-2079	-7246
725-	725-	-5897	-2119
556-	538-	-5341	-7845
555-	799-	-1392	-1109
456-	764-	-5406	-9154
736-	664-	-7875	-9018
664-	664-	-7335	-2184
576-	725-	-0494	-2367

10.3 Shapes of Distributions (continued)

- b. Describe the shape of the distribution of the data in the table below. Compare it to the distributions in part (a).

Ages of Cell Phones (years)					
0	1	0	6	4	0
2	3	5	1	1	2
0	1	2	3	1	0
0	0	1	1	1	1
7	1	4	2	2	2

10.3 Notetaking with Vocabulary

Vocabulary:

Notes:

10.3 Self-Assessment

Use the scale below to rate your understanding of the learning target and the success criteria.

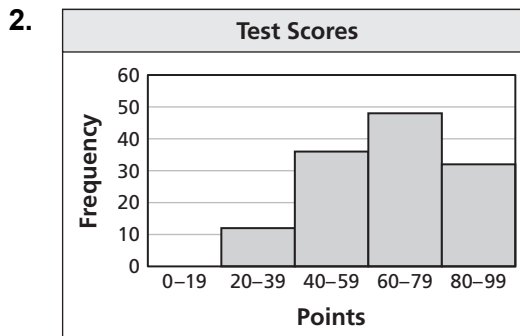
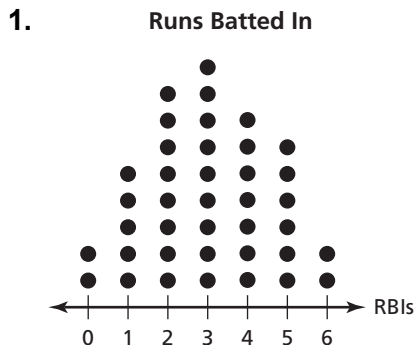


	Rating	Date
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I can explain what it means for a distribution to be skewed left, skewed right, or symmetric.	1 2 3 4	
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I can use shapes of distributions to compare data sets.	1 2 3 4	

10.3

Practice

Describe the shape of each distribution. Explain.



3. The frequency table shows the numbers of books read this month for the students in your class and the students in your friend’s class.

Number of Books Read This Month	0	1	2	3	4	5
Your Class	0	3	6	8	7	6
Your Friend’s Class	6	10	7	5	1	1

- Display the data for each class in a dot plot. Describe the shape of each distribution.
 - Which class read more books? Explain.
 - Which class has a greater mean? Explain.
 - Which class has a lesser mode? Explain.
4. The table shows the number of videos rented each day.

Videos Rented								
54	61	43	48	14	21	51	42	35
36	52	29	17	65	43	59	24	48
42	62	36	29	19	58	51	47	42

- Make a histogram of the data starting with the interval 10–19. Describe the shape of the distribution.
- During the following week, the number of video rentals were: 25, 37, 38, 31, 22, 35, 24. Make a new histogram including the new video rental data.
- Describe the shape of the new distribution.