

# Describing Data Distributions

## Lesson 1-8

DATE \_\_\_\_\_

TIME \_\_\_\_\_

### Math Message

- 1 Describe the shape of the graph. Where do most of the data points lie? Are they spread out or clumped together?

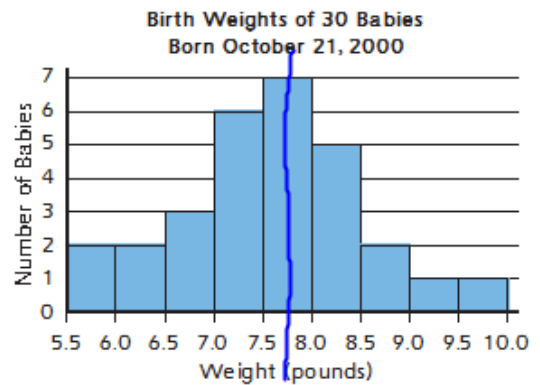
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- 2 Based on the graph, describe what you know about the birth weights of babies and what you do not know.

What You Know from the Graph	What You Do NOT Know from the Graph

- 3 Explain why the histogram about birth weights might have this shape.

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- 4 In your group, use 4 sheets of paper (1 piece for each object) to make the objects below.

Predict, to the nearest foot, how far you think each object can be thrown. (Do NOT actually throw any of the objects.)

Unfolded piece of paper: \_\_\_\_\_ Piece of paper folded in half twice: \_\_\_\_\_

Crumpled ball of paper: \_\_\_\_\_ Paper airplane: \_\_\_\_\_

# Analyzing Data Distributions

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5 Now for each object, follow these steps:

**Step 1** Throw the object.

**Step 2** Measure the distance the object traveled to the nearest foot.

**Step 3** Record the distance the object traveled in the table below.

**Step 4** Repeat Steps 1–3 four more times. (The same person throws the object each time.)

	Unfolded Paper	Folded Paper	Paper Ball	Paper Airplane
<b>Trial 1</b>				
<b>Trial 2</b>				
<b>Trial 3</b>				
<b>Trial 4</b>				
<b>Trial 5</b>				

Add your data to the class data table. Then follow your teacher's instructions for making a histogram for the class data set.

Your assigned object:

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6 Describe what you did for the bin size and scale and why you did it.

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# Analyzing Data Distributions

(continued)

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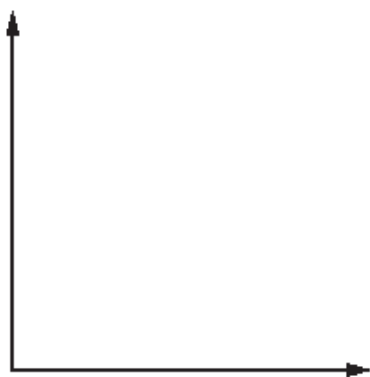
Use the class graphs to complete Problem 7.

If an object has more than one class graph, choose one to use.

- 7** **a.** Make a sketch of one of the class graphs for each object.
- b.** Describe the shape.
- c.** Draw a line approximately where you think the mean is for the graph.

### Graph for Unfolded Paper

Sketch:

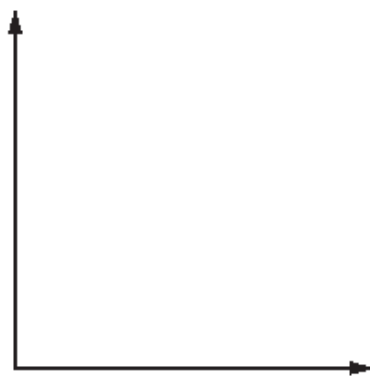


Description: \_\_\_\_\_

\_\_\_\_\_

### Graph for Folded Paper

Sketch:

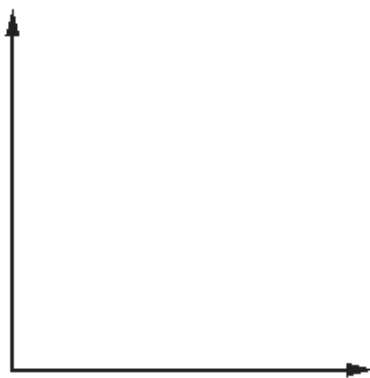


Description: \_\_\_\_\_

\_\_\_\_\_

### Graph for Paper Ball

Sketch:

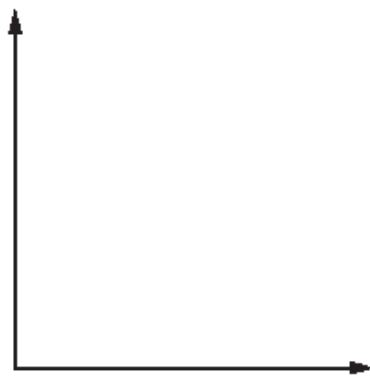


Description: \_\_\_\_\_

\_\_\_\_\_

### Graph for Paper Airplane

Sketch:



Description: \_\_\_\_\_

\_\_\_\_\_



- 1** Estimate the difference.  
Write a number sentence to show how you estimated.

a.  $698 - 507$

\_\_\_\_\_

b.  $7,902 - 878$

\_\_\_\_\_



- 2** Which of the following are statistical questions? Check ALL that apply.

How many ounces of food does a typical cat eat in a day?

How many hours do sixth graders study in a school day?

How much does a typical sixth grader weigh?

How many plants do you keep inside your house?



- 3** A hockey team scored the following number of goals in their previous 8 games: 6, 4, 6, 1, 0, 3, 6, 6. Would the mean or the median make them look like a better team?

\_\_\_\_\_



- 4** Write whether the number sentence is true or false.

a.  $\frac{7}{8} + \frac{1}{8} = \frac{8}{16}$  \_\_\_\_\_

b.  $\frac{6}{7} - \frac{2}{7} = \frac{4}{7}$  \_\_\_\_\_

c.  $\frac{4}{8} = \frac{3}{4} + \frac{1}{4}$  \_\_\_\_\_

d.  $\frac{3}{10} = \frac{9}{10} - \frac{3}{10}$  \_\_\_\_\_



- 5 Writing/Reasoning** Explain how you can use your estimate to check the answer to  $7,902 - 878$ .

# Kentucky Derby Winners

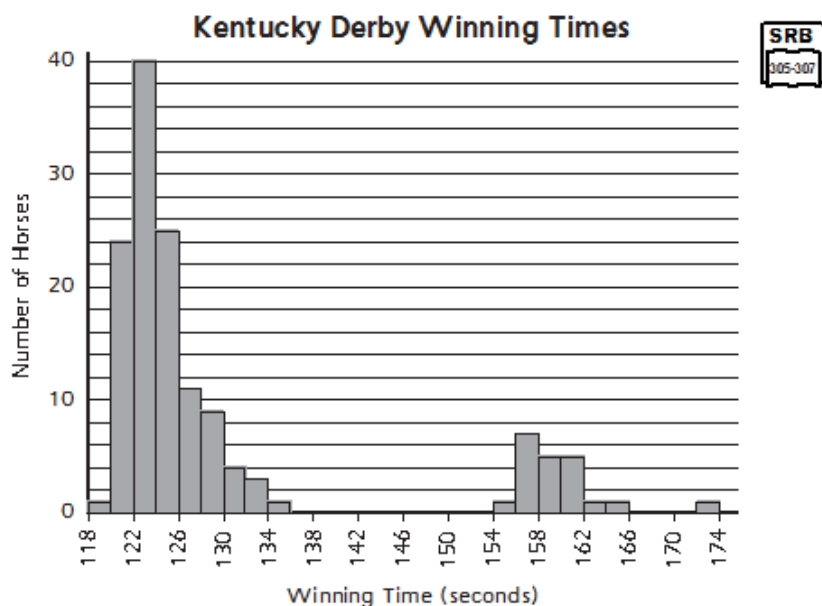
## Home Link 1-8

NAME \_\_\_\_\_

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Use the graph of Kentucky Derby winners' times for the problems below.



- ① Describe the shape of this graph.  
\_\_\_\_\_
- ② Explain why the graph for this data set might have this shape.  
\_\_\_\_\_  
\_\_\_\_\_
- ③ Draw a line on the graph approximately where you think the mean is.  
Approximately where are the median and the mode compared to the mean?  
\_\_\_\_\_  
\_\_\_\_\_

### Try This

- ④ Research and describe why the graph of Kentucky Derby winning times is this shape.  
\_\_\_\_\_

### Practice Solve.

- ⑤ \_\_\_\_\_ \* 50 = 350
- ⑥ 60 \* 40 = \_\_\_\_\_
- ⑦ 3,600 = 90 \* \_\_\_\_\_