

Name \_\_\_\_\_

**Make Bar Graphs****Essential Question** How can you display data on a bar graph?**Investigate****Materials** ■ bar graph pattern

Ms. Lyon's class took a survey of their favorite sport to watch. They recorded their results in the table below. Use the data in the table to make a bar graph of their favorite sport to watch.

Favorite Sport to Watch				
Sport	Football	Baseball	Soccer	Other
Number of Votes	12	4	6	2

- A.** Start by labeling the bar graph with important information. What will the title of your bar graph be?

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Where will you write the label *Sport*?

Where will you write the scale label *Number of Votes*?

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What labels will the bars of the bar graph have?

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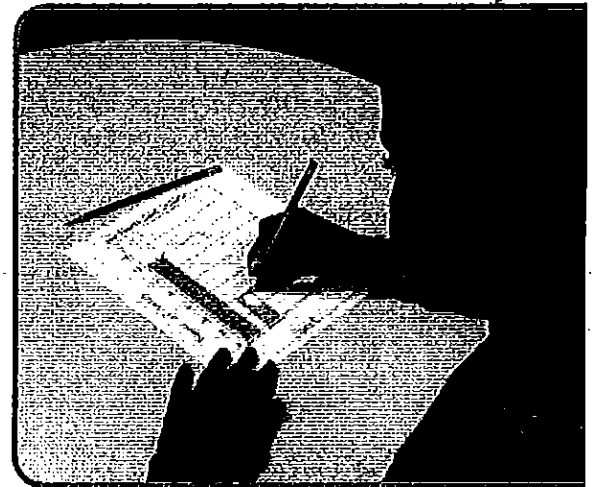
The scale for all graphs begins with \_\_\_\_\_. Since

this data set is all even numbers, a scale of \_\_\_\_\_ is appropriate for this graph.

- B.** Graph the number of students who voted for each sport by drawing and labeling a bar for each survey answer choice.

The bar labeled *Football* will end at \_\_\_\_\_. The bar labeled *Soccer* will end at \_\_\_\_\_.

The bar labeled *Baseball* will end at \_\_\_\_\_. The bar labeled *Other* will end at \_\_\_\_\_.



## Draw Conclusions .....

Use the bar graph you made on the previous page for 1–3.

1. Why is a scale of 1 not as good as a scale of 2 for this bar graph?

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2. Explain how using a scale of 4 would change the bar graph.

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3. **HOT** CONNECT How does knowing multiples of numbers help you choose an appropriate scale for a graph?

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## Make Connections .....

The data in the table and shown on your bar graph are the same, but are displayed in different ways. The bar graph is useful for comparing data. You can quickly see which items have the least and greatest values. The table shows exact values of each item.

- Which data display allows you to quickly find out which sport, football or baseball, got the most votes? Explain your choice.

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- Which data display is easier to use to find out exactly how many more students chose football over baseball? Explain your choice.

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**Math Talk** Describe a set of data that you could display in a bar graph.

Name \_\_\_\_\_

## Share and Show



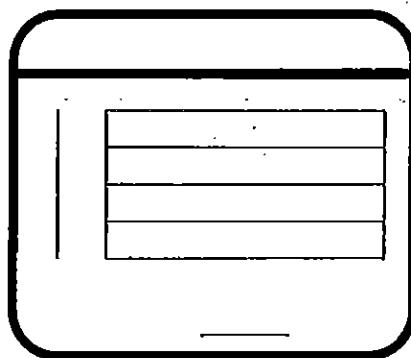
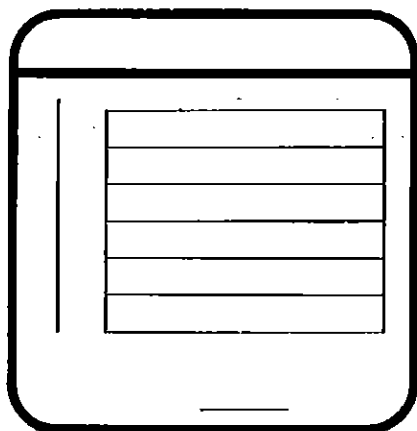
Use the tables for 1–6.

Number of Rainy Days			
Month	April	May	June
Number of Days	20	8	4

Number of Sunny Days			
Month	April	May	June
Number of Days	5	10	15



1. A scale of 5 would be more appropriate for a bar graph of the data in the table titled \_\_\_\_\_.
- ✓ 2. A scale of 4 would be more appropriate for a bar graph of the data in the table titled \_\_\_\_\_.
- ✓ 3. Make bar graphs to display the data in each table.



4. How many more sunny days were there in May than in April?  
\_\_\_\_\_

5. **Hot** Describe a relationship between the two data sets.  
\_\_\_\_\_  
\_\_\_\_\_

6. **Write Math** Ben wants to use a scale of 7 for his bar graph of the number of sunny days. Will it make the data easier or harder to read than using a scale of 5? Explain.  
\_\_\_\_\_  
\_\_\_\_\_

# Problem Solving

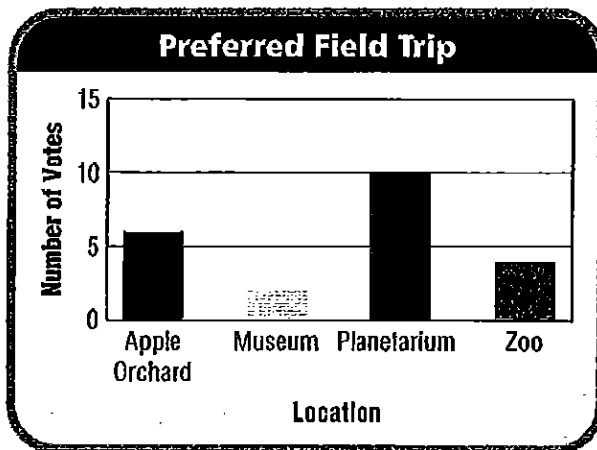


## What's the Error?

7. Students in Mr. Tran's class were surveyed about which of four field trip locations they would prefer to visit: an apple orchard, a museum, a planetarium, or a zoo. The results of the survey are shown in the table.

Preferred Field Trip	
Location	Number of Votes
Apple Orchard	6
Museum	2
Planetarium	11
Zoo	4

Tori made this graph of the data. What error did she make?



Look at the bar graph Tori made.  
Find and describe her error.

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Explain how you could correct the error.

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- What scale could Tori have used to make reading the values of the bars easier? Explain.

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Name \_\_\_\_\_

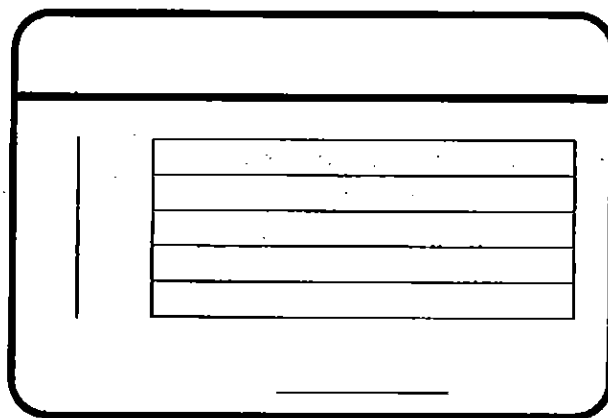
### Make Bar Graphs

Use the tables below for 1–5.

Number of Cats Adopted			
Month	June	July	August
Number of Cats	24	12	6

Number of Dogs Adopted			
Month	June	July	August
Number of Dogs	16	4	8

1. What scale would be appropriate for a bar graph of the data in the table titled *Number of Cats Adopted*? **Possible answer: 6**
2. What scale would be appropriate for a bar graph of the data in the table titled *Number of Dogs Adopted*? \_\_\_\_\_
3. Make a bar graph to display the data in the table titled *Number of Dogs Adopted*.
4. Were there more dogs adopted in July or in August? \_\_\_\_\_
5. How many more dogs were adopted in June than in July? \_\_\_\_\_



### Problem Solving



6. Some students were surveyed about which type of game they prefer. The results are shown in the table.

Paige made this bar graph of the data.  
What error did she make?

\_\_\_\_\_

\_\_\_\_\_

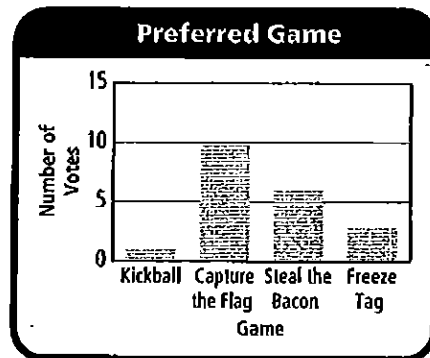
7. What scale could Paige have used to make reading the values of the bars easier? Explain.

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\_\_\_\_\_

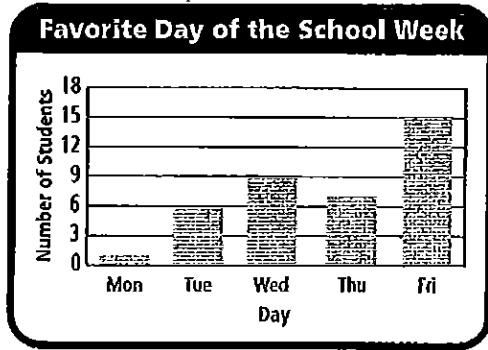
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Preferred Game	
Game	Number of Votes
Kickball	1
Capture the Flag	12
Steal the Bacon	6
Freeze Tag	3



## Lesson Check

1. Use the bar graph below. How many students were surveyed?



- (A) 37                      (C) 39  
(B) 38                      (D) 40

2. Which would be the most appropriate scale for a bar graph of the data in the table?

Color	Number of Votes
Red	56
Blue	21
White	42
Black	7
Other	28

- (A) multiples of 4  
(B) multiples of 5  
(C) multiples of 6  
(D) multiples of 7

## Spiral Review

3. Which of the following is a list of the factors of 16? (Lesson 2.5)

- (A) 1, 2, 8, 10, 16  
(B) 1, 4, 6, 8, 16  
(C) 2, 4, 8, 10, 12  
(D) 1, 2, 4, 8, 16

4. Gerald has 4 times as many trading cards as Minnie. Gerald has 32 trading cards. Which of the following equations could be used to find the number of trading cards Minnie has? (Lesson 3.9)

- (A)  $32 \times 4 = c$   
(B)  $32 = 4 \times c$   
(C)  $4 \div 32 = c$   
(D)  $32 \div 4 = c$

5. What are the first five multiples of 8? (Lesson 2.6)

- (A) 1, 2, 4, 8, 16  
(B) 8, 16, 24, 32, 40  
(C) 8, 16, 32, 40, 48  
(D) 16, 24, 32, 40, 48

6. Mr. Chun buys 15 packages of napkins for a school picnic. There are 40 napkins in each package. How many napkins does Mr. Chun buy in all? (Lesson 5.2)

- (A) 55                      (C) 400  
(B) 60                      (D) 600