

## Scholastic Math

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## Too Much Time Online?

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- Make a histogram to see how much time you spend online compared with classmates.

Have you spent a lot of time online this week? If you're like many of our readers (and us!), you probably have. But here's another question: Have you spent time with your family this week?

A recent study conducted by the Annenberg School for Communication at the University of Southern California showed that family members are spending more time on the Internet and less time together. In $2006,11 \%$ of people surveyed said they spent less time with their family since getting Internet access. Last year, that number grew to $28 \%$. At the same time, the number of hours families spend together has dropped to 17.9 hours a month.

Dr. Michael Osit, a child psychologist, has studied the Web's effects on families. "The Internet can be a problem," he told MATH. "It's not just the kids. Parents are increasing their time on the Internet."

Michael Jaget, a 14-year-old in Nevada, told MATH that the Internet is a big part of his family's life. "I think the Internet does distract from family activities," Michael said. "My dad is always online doing business. My younger sister, who is 2 , is always online! I probably spend 30 to 45 minutes a day on the Internet."

But Michael's family also makes sure to spend time together. He said, "We go to the park, hang out, and play sports."

Dr. Osit thinks that families can do both--spend time together and online. "Parents should join their kids on the Internet. Visit other countries' Web sites or play games," he told us.

Now, see how your online time compares with your classmates' by making a histogram. Talk about it with your family later!

## All About Histograms

A histogram is a type of bar graph. On a regular bar graph, each bar represents one thing (like favorite season: winter, spring, summer, or fall). On a histogram, each bar represents an interval of answers. (For example, if the data was "number of hats you own," the different intervals could be: 0-4, 5-9, 10-14, etc.). Histograms show you how data is distributed, or spread out.

Here's how to make a histogram:

- First, collect your data. For our sample histogram, we asked 15 coworkers how many meals they ate in a restaurant in 1 month. Here are the answers (our data): 12, 3, 5, 7, 9, 15, 1, 8, 4, 11, 7, 6, 3, 5, 6
- Next, look at your range of data. For example, our lowest answer was 1 meal. Our highest was 15.
- Divide that range into equal intervals. We picked 5 intervals of 3 meals per person: 1-3 meals, 4-6 meals, and so on. (Try not to have too many intervals.)
- Make a table, placing each piece of data into one of the intervals. Look at the example below.

| Restaurant Meals in One <br> Month | Coworkers |
| :---: | :---: |
| $1-3$ | 3 |
| $4-6$ | 5 |
| $7-9$ | 4 |
| $10-12$ | 2 |
| $13-15$ | 1 |

- Next, use the data to draw your histogram:
- Remember to give your histogram a title, and to label your horizontal and vertical axes.


Histogram: Restaurant Meals
(Credit: SCHOLASTIC MATH)

Now, get started on your own histogram:

- For one week, you and your classmates should keep track of how much time each of you spends online each day. Make a list of each person's total number of hours for the week.
- Use the class data to answer questions 1 to 4 . Use those answers to make a histogram on a separate sheet of paper.
1.a. What is the least number of hours in the data you collected? $\qquad$
b. What is the greatest number of hours? $\qquad$

2. Look at the range of data from least to greatest. Divide the data into intervals. How many equal intervals will there be on your histogram? $\qquad$
3. How many bars do you need for your data? $\qquad$
4. Say you labeled your $x$-axis "Hours Spent Online in a Week." What would you label the $y$-axis?
A. Number of Students
B. Number of Computers Per Household
C. Hours Spent Offline in a Week

## Write Now

What types of activities, online or off, can you think of that would include your whole family? List your ideas on separate paper.

## Answers

Answers will vary. Make sure students' histograms are properly labeled, with no spaces between the bars.

1-3. Answers will vary
4. A

Write Now: Answers will vary and may include game night, family dinner, going for a walk, etc.


