

**Holes by Louis Sachar**  
Frances Foster Books, New York, 1998

For more information, visit our Web site  
[www.figurethis.org](http://www.figurethis.org)

**Figure This!**  
Math Challenges for Families

*"Instead of twenty-six letters. There are really fifty-two."*

*Stanley looked at him surprised. "I guess that's right. How'd you figure that out?" he asked.*

*Zero said nothing.*

*"Did you add?"*

*Zero said nothing.*

*"Did you multiply?"*

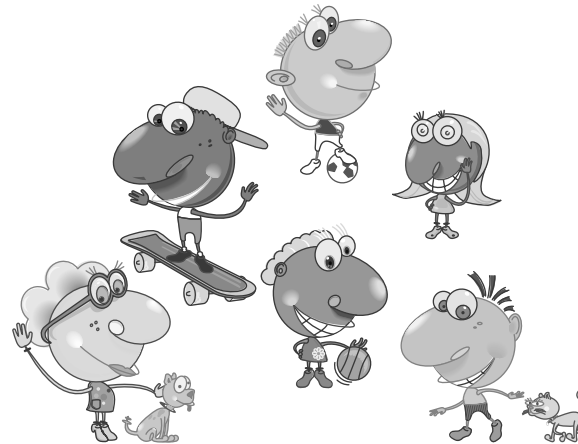
*"That's just how many there are."*

*"It's good math," said Stanley.*

*"I'm not stupid," Zero said. "I know everybody thinks I am. I just don't like answering their questions."*

**Questions:**

- How many letters of the English alphabet are there?
- Why did Zero say there are 52?
- What type of reasoning is being used?



Produced by the  
**National Council of Teachers of Mathematics**  
Designed by  
**The Widmeyer-Baker Group**  
and the  
**National Council of Teachers of Mathematics**  
Jointly Funded by  
**The National Science Foundation**  
and  
**The U.S. Department of Education**

This material is based upon work supported by the National Science Foundation and the U.S. Department of Education under Grant No. ESI9813096. Any opinions, findings, conclusions, or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation or the U.S. Department of Education.



**Our family likes to read.  
Are there any good  
books that make math  
part of the story?**

## Find math where you least expect it—in your child’s books and reading materials.

**M**ath turns up in the most unexpected places! You'll find it somewhere between the covers of almost any book—novels, mysteries, biographies, legends, and adventures.

For ideas on how you and your child might talk about the math you discover in books you read, look over the selections in this brochure and the questions that follow below them. But they're only starters.

You'll soon start finding the math in everything you read. Talking about it is one more way to bring your family together. Enjoy!



Doing mathematics as you read literature is a real possibility if you choose the right books. The following passages from contemporary literature, and the accompanying questions, can give you some ideas on how to mix math and your reading.

### ***The Phantom Tollbooth* by Norton Jester Bullseye Books, New York, 1961**

*"Oh, we're just the average family," he said thoughtfully; "mother, father, and 2.58 children—and, as I explained, I'm the .58."*

*"It must be rather odd being only part of a person," Milo remarked.*

*"Not at all," said the child. "Every average family has 2.58 children, so I always have someone to play with. Besides, each family also has an average of 1.3 automobiles, and since I'm the only one who can drive three tenths of a car, I get to use it all the time."*

#### **Questions:**

- What are averages? When are they useful? Are they "real" numbers?
- Every middle school child should be able to discuss averages. What does average mean to you?

### ***Hatchet* by Gary Paulsen Penguin Books, New York, 1987**

*[Brian] looked at the dashboard of the plane, studied the dials and hoped to get some help, hoped to find a compass, but it was all so confusing, a jumble of numbers and lights.*

*He tried to figure out the dials.... He thought he might know which was speed—it was a lighted number that read 160—but he didn't know if that was actual miles an hour, or kilometers, or if it just meant how fast the plane was moving through the air and not over the ground.*

*When the pilot had jerked he had moved the plane, but Brian could not remember how much or if it had come back to its original course. Since he did not know the original course anyway and could only guess at which display might be the compass—the one reading 342—he did not know where he had been or where he was going....*

#### **Questions:**

- How are 160 miles an hour and 160 kilometers an hour different?
- What markings are on a compass? Can a compass have a reading of 342°?