

# A Fair Day for Math

“**H**ow much does it weigh?”  
“I have no idea!”  
“How much do you *think* it weighs?”

Nine-year-old Brien cannot believe his mom is asking him the weight of a cow at the county fair. But Chris Nugent knows a Math Moment when she sees one. She doesn't expect her son to know the cow's weight, but she knows he can use some math to come up with a reasonable estimate. Finally, he compares the cow to his mother and decides that the cow weighs five times as much as she does. Being compared to a cow might not flatter his mom, but Chris likes Brien's approach to the problem. He announces the cow's weight.

He's way off. The cow's owner tells him that the Holstein weighs about 1,500 pounds – much more than five of Brien's mom, as she quickly points out.

Brien does better with the pigs. Guessing that six would weigh the same as the cow, he predicts 250 pounds per pig.

“Close, young fella, close!” says the farmer, enjoying the game.

**A**cross the nation, millions of people converge on county and state fairs every summer to see farm products, crafts, games and stage shows. With a little prompting from parents, children can include math in the mix. Carnivals and theme parks don't have prize pigs, but they

offer similar opportunities for mathematical amusement.

Waiting with his tray at the cafeteria, Brien starts folding a napkin and Chris points out that he has folded it into eight equal parts. What is each part called? Brien knows they are eighths. His mom asks him what to call four of those eighths?

Then she takes another napkin and folds it into fourths. How many of Brien's eighths equal one of Chris's fourths? What would he call the portion of the napkin with one fourth and one eighth? Enough fractions for now, it's burger time!

Later, a ride on the Ferris wheel raises the question of how many people the wheel holds. Brien realizes it's a multiplication problem. He must multiply the number of cars (16) by the number of people in each car (6). Chris shows him how to make easy work of it: 16 is 10 plus 6, so he can multiply each of those numbers by six and add the results. “Sixty,” Brien says tentatively, “plus 36 ... is 96. Easy!”

Now Brien is getting into the spirit of his mom's mathematical mentoring. “How many screws are in the roller coaster?” he wonders aloud. But neither of them stops to figure it out as they rush to the Big Top to catch a magician's act. By the time they head to their car in the parking lot, Brien and Chris are bushed, but Math Moments keep cropping up. “If we count



**Estimating the weight of livestock is just one of the many Math Moments families can find at a seasonal fair.**

the cars in this row as we walk by, and multiply by the number of rows ...”

*Math Moments™* creator David Schwartz spends much of his time finding unusual, whimsical ways to make math and science come alive for kids and teachers, both through writing and through speaking at schools and conferences. He has written nearly 50 books for kids, including *How Much Is a Million?* and the “Look Once, Look Again” series. For more information about David's math and science adventures, check out his Web site, [www.davidschwartz.com](http://www.davidschwartz.com).

## Share Your Math Moments

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