

# Watermelon Fractions

Story By: Andrew Frinkle

Kenny watched his dad raise a knife and bring it down at the center point of a watermelon. It split cleanly in two, making a peeling, sucking noise as the two halves separated. He wasn't sure how this was helping him with his math homework, but Dad had insisted.

"How many pieces do I have now, Kenny?" Dad asked.

"Two." Kenny replied.

"Correct. So what do we call each piece?"

"A half." Kenny answered immediately, because that was an easy question.

Dad nodded, raised the knife again, and chopped each juicy red half in half again. "Half of a half makes what?"

Kenny thought for a moment. "Each one is a quarter, right? Just like a dollar has four quarters..."

Dad smiled. "That's a very good comparison: quarter of a dollar or a quarter of a watermelon. There are four pieces either way. A half of a half is a quarter, but how about," he raised the knife and chopped each quarter in half, "a half of a quarter?"

"I don't know." Kenny admitted.

"Sure you do. Think about the fractions we've used so far. We had a half, which is 1 over 2. Then we had a quarter, which is 1 over 4. If the bottom number doubles, what would it be?"

"Can't I just count the pieces?" Kenny inquired.

Dad shook his head, "That's the easy way, but what if we get to a point where you can't count for some reason? Shouldn't you be able to figure them out in your head?"

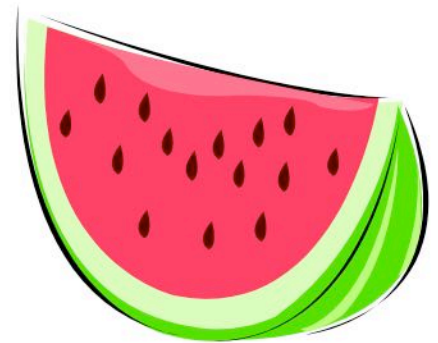
Kenny sighed and thought. The bottom number, the denominator of the fractions, went from 2 to 4, so would it be 6 now? Was it going up by twos? No, that didn't seem right. It went from 1 to 2 to 4 actually, which meant it was doubling. "Each piece is an eighth, 1 over 8."

Dad winked at him and then cut each eighth in half. "Now then, what is half of an eighth?" The wedges of melon were much smaller than they started, and there were a lot more to count.

"It's a sixteenth." Kenny answered confidently. Double eight was sixteen, so if each of the eight pieces had been cut in half, then there must be sixteen.

"Exactly." Dad put down the knife, done cutting the watermelon for the family. "I wonder how many pieces I'd have if I cut everything in half twice more, though." He smiled and walked away with the tray of melon, leaving Kenny to think.

"Thirty-two would become sixty-four." Kenny eventually said to himself, smiling and following his Dad. Fractions – he got them now, and he hadn't even minded the delicious way Dad had helped him with his homework.



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Use the information in the story to answer the questions below.

1. Kenny needs help in what subject's homework for school?
  - A. reading
  - B. social studies
  - C. science
  - D. math
  
2. How does Kenny's Dad show Kenny about fractions?
  - A. on paper
  - B. they just talk
  - C. by cutting watermelon
  - D. with flash cards
  
1. After the first cut, how many pieces of watermelon were there?
  - A. 1
  - B. 2
  - C. 4
  - D. 8
  
2. After the second time the watermelon was cut in half, how many pieces were there?
  - A. 1
  - B. 2
  - C. 4
  - D. 8
  
5. To get the answer of 64 at the end, how many times would the watermelon pieces have to get cut in half?
  - A. 3
  - B. 4
  - C. 5
  - D. 6

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