**Lower Elementary:**

*Question:* Alice the librarian has a cart of 3 dozen books to put back on the shelves. She puts 3 of them away before she’s startled by a ghost and runs away. How many books does Alice leave on her cart?

**Upper Elementary:**

*Question:* Peter and Ray walk 4½ miles to get to the library to investigate some paranormal activity. If they can walk 3 miles in 1 hour, then how many minutes does it take them to get to the library?

**Middle School:**

*Question:* A paranormal activity hotline receives 1,000 calls per hour, 24 hours per day, for 6 weeks straight. The paranormal investigators only respond to 2% of those calls. How many calls do the investigators respond to in 6 weeks?

**Algebra and Up:**

*Question:* A 6-inch tall marshmallow man has a volume of 15 cubic inches. If the marshmallow man magically increases in size so that he grows proportionally to a height of 100 feet, then what is his new volume?

**Lower Elementary:**

*Question:* Alice the librarian has a cart of 3 dozen books to put back on the shelves. She puts 3 of them away before she’s startled by a ghost and runs away. How many books does Alice leave on her cart?

*Answer:* 33 books

*Solution:* Since a dozen is 12, Alice starts with 12 + 12 + 12 = 36 books. After she shelves 3 of them, there are 36 – 3 = 33 books left on the cart.

**Upper Elementary:**

*Question:* Peter and Ray walk 4½ miles to get to the library to investigate some paranormal activity. If they can walk 3 miles in 1 hour, then how many minutes does it take them to get to the library?

*Answer:* 90 minutes

*Solution:* Since 3 miles goes into 4½ miles 1 times, it takes Peter and Ray 1½ hours to walk to the library. An hour is 60 minutes, so 1½ hours is 60 × 1½ = 90 minutes.

**Middle School:**

*Question:* A paranormal activity hotline receives 1,000 calls per hour, 24 hours per day, for 6 weeks straight. The paranormal investigators only respond to 2% of those calls. How many calls do the investigators respond to in 6 weeks?

*Answer:* 20,160 calls

*Solution:* If the investigators respond to 2% of the calls, they respond to 0.02 × 1,000 = 20 calls per hour. So, they respond to 20 × 24 = 480 calls per day. There are 7 days in a week, so 6 weeks is 42 days. That means that the investigators respond to 480 × 42 = 20,160 calls in 6 weeks.

**Algebra and Up:**

*Question:* A 6-inch tall marshmallow man has a volume of 15 cubic inches. If the marshmallow man magically increases in size so that he grows proportionally to a height of 100 feet, then what is his new volume?

*Answer:* 120,000,000 cubic inches

*Solution:* The marshmallow man started at half a foot tall and grew to 100 feet tall, so his height was multiplied by 200. If he increased in size proportionally, his width and length also should be multiplied by 200. So, his new volume is 15 × 200 × 200 × 200 = 120,000,000 cubic inches.