**Lower Elementary:**

*Question:* Abby has $5.00 to spend on snacks. Cookies cost 50¢ per cookie, chips cost 75¢ per bag, and juice costs $1.00 per bottle. If Abby buys one of each, how much money will she have left?

**Upper Elementary:**

*Question:* Brianna has a box that can hold up to 50 pounds. She puts 3 books that each weigh 2 pounds inside the box. She also puts a lamp that weighs 20 pounds inside the box. What percent of the box’s maximum weight capacity does Brianna have left to fill?

**Middle School:**

*Question:* Caleb has an aquarium that is 2 feet long, 1 foot wide, and 1 foot tall. A gallon is equal to 231 cubic inches. How many whole gallons of water can the aquarium hold?

**Algebra and Up:**

*Question:* Darcy is decorating her bedroom and sketches a floor plan to a 1:12 scale. What is the area of the surface of a desk that is 31/2 inches long and 21/4 inches wide on Darcy’s sketch?

**Lower Elementary:**

*Question:* Abby has $5.00 to spend on snacks. Cookies cost 50¢ per cookie, chips cost 75¢ per bag, and juice costs $1.00 per bottle. If Abby buys one of each, how much money will she have left?

*Answer:* $2.75

*Solution:* Abby’s snacks cost $0.50 + $0.75 + $1.00 = $2.25. So, Abby will have $5.00 – $2.25 = $2.75 left.

**Upper Elementary:**

*Question:* Brianna has a box that can hold up to 50 pounds. She puts 3 books that each weigh 2 pounds inside the box. She also puts a lamp that weighs 20 pounds inside the box. What percent of the box’s maximum weight capacity does Brianna have left to fill?

*Answer:* 48%

*Solution:* Brianna puts 3 × 2 + 20 = 26 pounds of stuff into the box. That means the box can hold another 50 – 26 = 24 pounds. Since 50 is half of 100 and percents are out of 100, we can double 24 to find that there is still 48% of the box’s maximum weight capacity left to fill.

**Middle School:**

*Question:* Caleb has an aquarium that is 2 feet long, 1 foot wide, and 1 foot tall. A gallon is equal to 231 cubic inches. How many whole gallons of water can the aquarium hold?

*Answer:* 14 gallons

*Solution:* The aquarium is 24 inches long, 12 inches wide, and 12 inches tall. So, its volume is 24 × 12 × 12 = 3,456 cubic inches. When we divide 3,456 by 231, we get 14 whole gallons and a remainder of 222 cubic inches.

**Algebra and Up:**

*Question:* Darcy is decorating her bedroom and sketches a floor plan to a 1:12 scale. What is the area of the surface of a desk that is 31/2 inches long and 21/4 inches wide on Darcy’s sketch?

*Answer:* 77/8 square feet

*Solution:* If the scale is 1:12, then 1 inch on the sketch represents 12 inches in the real world. So, an inch on the map is a foot in real life. The surface of the desk therefore has an area of 31/2 × 21/4 = 77/8 square feet.