**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 kilograms. She puts 3 books that each weigh 2 kilograms inside the box. She also puts a lamp that weighs 20 kilograms 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 metres long, 1 metre wide, and 1 metre tall. A litre is equal to 1000 cubic centimetres. How many whole litres of water can the aquarium hold?

**Algebra and Up:**

*Question:* Darcy is decorating her bedroom and sketches a floor plan to a 1:10 scale. What is the area of the surface of a desk that is 81/2 centimetres long and 51/4 centimetres 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 kilograms. She puts 3 books that each weigh 2 kilograms inside the box. She also puts a lamp that weighs 20 kilograms 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 kilograms of stuff into the box. That means the box can hold another 50 – 26 = 24 kilograms. 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 metres long, 1 metre wide, and 1 metre tall. A litre is equal to 1000 cubic centimetres. How many whole litres of water can the aquarium hold?

*Answer:* 2000 whole litres

*Solution:* The aquarium is 200 centimetres long, 100 centimetres wide, and 100 centimetres tall. So, its volume is 200 × 100 × 100 = 2 000 000 cubic centimetres. When we divide 2 000 000 by 1000, we get 2000 whole litres.

**Algebra and Up:**

*Question:* Darcy is decorating her bedroom and sketches a floor plan to a 1:10 scale. What is the area of the surface of a desk that is 81/2 centimetres long and 51/4 centimetres wide on Darcy’s sketch?

*Answer:* 77/8 square feet

*Solution:* If the scale is 1:10, then 1 centimetre on the sketch represents 10 centimetres in the real world. So, a centimetre on the map is a decimetre in real life. The surface of the desk therefore has an area of 81/2 × 51/4 = 445/8 square decimetres.