**Lower Elementary:**

*Question:* A bakery is having a half-price sale on donuts. A half-dozen donuts are only $3.00! How much do a dozen donuts cost at their regular price?

**Upper Elementary:**

*Question:* Eric has $31.00 to spend on groceries. He has 4 boxes of cookies that cost $2.85 each and a two-litre carton of milk that costs $3.50 in his cart already. How much money does Eric have left to spend on his other groceries?

**Middle School:**

*Question:*  Russell’s new diesel car gets 17 kilometres per litre. He wants to take a road trip from Winnipeg to Montréal, a distance of 2261 kilometres. The average price of diesel for the whole trip is $1.26 per litre. How much will the fuel cost for the whole trip, there and back?

**Algebra and Up:**

*Question:* Shiv has two fish tanks. One is shaped like a rectangular prism that measures 25 centimetres long by 10 centimetres wide by 15 centimetres high. The other tank is shaped like a cylinder with a 10-centimetre radius and a 12-centimetre height. Which tank can hold the most water? How much more water can it hold than the other tank? (Round π to 3.14)

**Lower Elementary:**

*Question:* A bakery is having a half-price sale on donuts. A half-dozen donuts are only $3.00! How much do a dozen donuts cost at their regular price?

*Answer:* $12.00

*Solution:* If something is on sale for half price, the sale price is half of the regular price. Since a half-dozen donuts cost $3.00 on sale, we can double $3.00 to find the regular price. $3.00 doubled is $6.00.

Two half-dozens equal one dozen. Since a half-dozen donuts cost $6.00 at regular price, a dozen donuts cost $6.00 + $6.00 = $12.00 at regular price.

**Upper Elementary:**

*Question:* Eric has $31.00 to spend on groceries. He has 4 boxes of cookies that cost $2.85 each and a two-litre carton of milk that costs $3.50 in his cart already. How much money does Eric have left to spend on his other groceries?

*Answer:* $16.10

*Solution:* The 4 boxes of cookies cost 4 × $2.85 = $11.40. The cookies plus the milk cost $11.40 + $3.50 = $14.90. Subtracting $14.90 from $31.00, we get $16.10.

**Middle School:**

*Question:*  Russell’s new diesel car gets 17 kilometres per litre. He wants to take a road trip from Winnipeg to Montréal, a distance of 2261 kilometres. The average price of diesel for the whole trip is $1.26 per litre. How much will the fuel cost for the whole trip, there and back?

*Answer:* $335.16

*Solution:* The round trip is 2261 × 2 = 4522 kilometres. Russell’s car gets 17 kilometres per litre, so he needs 4522 kilometres ÷ 17 km/L = 266 litres of fuel for the whole trip. The average price of diesel is $1.26 per litre. The cost for fuel for the whole trip is $1.26 × 266 = $335.16.

**Algebra and Up:**

*Question:* Shiv has two fish tanks. One is shaped like a rectangular prism that measures 25 centimetres long by 10 centimetres wide by 15 centimetres high. The other tank is shaped like a cylinder with a 10-centimetre radius and a 12-centimetre height. Which tank can hold the most water? How much more water can it hold than the other tank? (Round π to 3.14)

*Answer:* The cylindrical tank holds 18 cm3 more water than the rectangular prism.

*Solution:* The volume of the rectangular prism tank is 25 cm × 10 cm × 15 cm = 3750 cm3.

The volume of the cylindrical tank is (3.14)(10)2(12) ≈ 3768 cm3.

The cylindrical tank holds 3768 − 3750 = 18 cm3 more water than the rectangular prism tank.