**Lower Elementary:**

*Question:* Chloe had an excellent fishing day. She caught 6 snappers, 4 mackerels, 1 grouper, and 1 soggy boot. She threw half the snappers and half the mackerels back into the ocean. How many fish did she take home?

**Upper Elementary:**

*Question:* Landon goes to a theme park where ride tokens cost 25¢. A roller coaster ride takes 3 tokens. A ride on the Ferris wheel takes 5 tokens. Landon rides the roller coaster and the Ferris wheel 7 times each. How much money did Landon spend on rides?

**Middle School:**

*Question:* A hamster and a guinea pig are running on wheels. The hamster’s wheel is 16 centimetres in diameter. The guinea pig’s wheel is 48 centimetres in diameter. How much farther does the guinea pig run for each rotation of its wheel?

**Algebra and Up:**

*Question:* It costs $20.00 to rent a jet ski, plus $1.50 for each hour of use, plus the cost of gas. James rents a jet ski for 2 hours. He uses 2750 millilitres of gas, which costs $0.75 per litre. Write an expression to find the total cost of the rental. How much did the jet ski rental cost altogether?

**Lower Elementary:**

*Question:* Chloe had an excellent fishing day. She caught 6 snappers, 4 mackerels, 1 grouper, and 1 soggy boot. She threw half the snappers and half the mackerels back into the ocean. How many fish did she take home?

*Answer:* 6 fish

*Solution:* Chloe caught 6 + 4 + 1 = 11 fish in total. She threw 3 snappers back because half of 6 is 3, and she also threw 2 mackerels back because half of 4 is 2. That means she went home with 11 – 3 – 2 = 6 fish.

**Upper Elementary:**

*Question:* Landon goes to a theme park where ride tokens cost 25¢. A roller coaster ride takes 3 tokens. A ride on the Ferris wheel takes 5 tokens. Landon rides the roller coaster and the Ferris wheel 7 times each. How much money did Landon spend on rides?

*Answer:* $14.00

*Solution:* Three tokens for the roller coaster cost 25¢ × 3 = 75¢. Five tokens for the Ferris wheel cost 25¢ × 5 = $1.25. The total cost for 7 rides on the roller coaster cost $0.75 × 7 = $5.25, and 7 rides on the Ferris wheel cost $1.25 × 7 = $8.75. So, Landon spent $5.25 + $8.75 = $14.00 on rides.

**Middle School:**

*Question:* A hamster and a guinea pig are running on wheels. The hamster’s wheel is 16 centimetres in diameter. The guinea pig’s wheel is 48 centimetres in diameter. How much farther does the guinea pig run for each rotation of its wheel?

*Answer:* 32π inches

*Solution:* The formula we use to find the circumference, or the distance around a circle, is C = 2πr, r being the radius, or half the diameter, of the circle. The hamster runs 2 × π × 8 = 16π centimetres. The guinea pig runs 2 × π × 24 = 48π. So, the guinea pig runs 48π – 16π = 32π centimetres farther than the hamster.

**Algebra and Up:**

*Question:* It costs $20.00 to rent a jet ski, plus $1.50 for each hour of use, plus the cost of gas. James rents a jet ski for 2 hours. He uses 2750 millilitres of gas, which costs $0.75 per litre. Write an expression to find the total cost of the rental. How much did the jet ski rental cost altogether?

*Answer:* $25.24

*Solution:* To find the price of the rentals, we can use the expression $20.00 + $1.50t + $0.75l wherein t is the number of hours spent with the jet skis and l is the litres of gas used. James rented 1 jet ski for 2 hours and used 2.75 litres of gas, so he spent $20.00 + $1.50 × 2 + $0.75 × 2.75 = $25.24 after rounding.