

Name _____



Scale Explorer

Directions: Solve each real-world problem. Use powers of ten and place value to find the answer.

1. A ribbon is 3.5 meters long. How many centimeters is it? Hint: Multiply by 10^2 . Answer: _____ cm
2. A science sample weighs 7,200 milligrams. How many grams is it? Hint: Divide by 10^3 . Answer: _____ g
3. A charity collected \$48.50 from one class. If another event raises 10^2 times as much, how much money is collected? Answer: \$_____
4. A town has a population of 6,200 people. A regional report lists a value that is 10^1 times greater. What is the new number? Answer: _____ people
5. A bottle holds 2.4 liters of water. How many milliliters is that? Hint: Multiply by 10^3 . Answer: _____ mL
6. A drone flew 9,500 meters. How many kilometers did it fly? Hint: Divide by 10^3 . Answer: _____ km
7. A microscope image shows an object measuring 0.63 centimeters. Express this length in millimeters. Hint: Multiply by 10^1 . Answer: _____ mm
8. A data file is 8,400 kilobytes. How many megabytes is it if $1 \text{ MB} = 10^3 \text{ KB}$? Hint: Divide by 10^3 . Answer: _____ MB
9. A water tank contains 0.75 kiloliters. How many liters is that? Hint: Multiply by 10^3 . Answer: _____ L
10. A weather station recorded 54,000 millimeters of rain over many years. Express this amount in meters. Hint: Divide by 10^3 . Answer: _____ m