

- The density of a substance is 4.8 g/mL . What is the volume of a sample that is 19.2 g ?
- A 2.00-mL sample of substance A has a density of 18.4 g/mL and a 5.00-mL sample of substance B has a density of 35.5 g/mL . Do you have an equal mass of substances A and B?
- Express the following quantities in scientific notation.
 - $5\,453\,000 \text{ m}$
 - 300.8 kg
 - $0.005\,36 \text{ ng}$
 - $0.012\,032\,5 \text{ km}$
 - $34\,800 \text{ s}$
 - $332\,080\,000 \text{ cm}$
 - $0.000\,238\,3 \text{ ms}$
 - 0.3048 mL
- Solve the following problems. Express your answers in scientific notation.
 - $3 \times 10^2 \text{ m} + 5 \times 10^2 \text{ m}$
 - $8 \times 10^{-5} \text{ m} + 4 \times 10^{-5} \text{ m}$
 - $6.0 \times 10^5 \text{ m} + 2.38 \times 10^6 \text{ m}$
 - $2.3 \times 10^{-3} \text{ L} + 5.78 \times 10^{-2} \text{ L}$
 - $2.56 \times 10^2 \text{ g} - 1.48 \times 10^2 \text{ g}$
 - $5.34 \times 10^{-3} \text{ L} - 3.98 \times 10^{-3} \text{ L}$
 - $7.623 \times 10^5 \text{ nm} - 8.32 \times 10^4 \text{ nm}$
 - $9.052 \times 10^{-2} \text{ s} - 3.61 \times 10^{-3} \text{ s}$
- Solve the following problems. Express your answers in scientific notation.
 - $(8 \times 10^3 \text{ m}) \times (1 \times 10^5 \text{ m})$
 - $(4 \times 10^2 \text{ m}) \times (2 \times 10^4 \text{ m})$
 - $(5 \times 10^{-3} \text{ m}) \times (3 \times 10^4 \text{ m})$
 - $(3 \times 10^{-4} \text{ m}) \times (3 \times 10^{-2} \text{ m})$
 - $(8 \times 10^4 \text{ g}) \div (4 \times 10^3 \text{ mL})$
 - $(6 \times 10^{-3} \text{ g}) \div (2 \times 10^{-1} \text{ mL})$
 - $(1.8 \times 10^{-2} \text{ g}) \div (9 \times 10^{-5} \text{ mL})$
 - $(4 \times 10^{-4} \text{ g}) \div (1 \times 10^3 \text{ mL})$
- Convert the following as indicated.
 - 96 kg to g
 - 155 mg to g
 - 15 cg to kg
 - $584 \mu\text{s}$ to s
 - 188 dL to L
 - 3600 m to km
 - 24 g to pg
 - 85 cm to nm
- How many minutes are there in 5 days?
- A car is traveling at 118 km/h . What is its speed in Mm/h ?