

## I'm Not Dense About Density!

**METRIC PRACTICE:** Convert the following numbers from one unit to the other:

- 1) 128 km = \_\_\_\_\_ cm                      2) 327 m = \_\_\_\_\_ Hm  
3) 4324 mg = \_\_\_\_\_ Kg                      4) 23 dm = \_\_\_\_\_ Km  
5) 1,589 DL = \_\_\_\_\_ mL                      6) 389 ml = \_\_\_\_\_ L

**DENSITY PROBLEMS:** Use the information given to solve for the unknown value:

Q #	Answers are in parenthesis, but do not have units! You must <b>show your work</b> and <b>include units!</b>
7	What is the equation for density?
8	If an object weighs 34.8-grams and has a volume of 22.8-mL, what is this objects density? (1.53)
9	A 150.0-mL balloon has 3.3-g of helium inside of it, what is the density of the helium? (0.022)
10	What is the density of an unknown metal weighing 120.0-g and taking up 58.3-cm <sup>3</sup> of space? (2.06)
11	Define Density in words, not an equation.
12	Most of the buildings on the Indiana University campus are made of limestone. Limestone has a density of 2.72 g/cm <sup>3</sup> . What is the mass of a 24.9 cm <sup>3</sup> block of limestone? (67.7)
13	Find the <u>volume</u> of a liquid which has a density of 1.85-g/mL and 'weighs' 5.56 g. (3.01)
14	Find the <u>mass</u> of 3.8-mL mercury in a thermometer. The density of Hg is 13.5-g/cm <sup>3</sup> (51)
15	What is the volume of a piece of tungsten if its density is 19.3-g/mL and the mass of the tungsten is 0.2305-kg? (11.9)

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