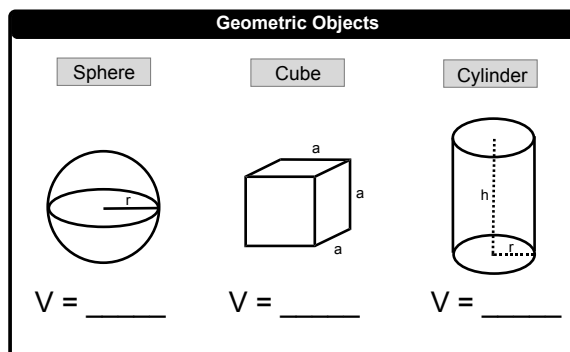## CONCEPT: DENSITY OF GEOMETRIC OBJECTS

● When given the mass of a geometric object you can relate it to its volume and density.

EXAMPLE: The density of silver is 10.5 g/cm³. What is the mass (in kilograms) of a cube of silver that measures 0.56 m on each side?

PRACTICE: A copper wire (density = 8.96 g/cm³) has a diameter of 0.32 mm. If a sample of this copper wire has a mass of 21.7 g, how long is the wire?

PRACTICE: If the density of a certain spherical atomic nucleus is 1.0 x 10¹⁴ g/cm³ and its mass is 3.5 x 10⁻²³ g, what is the radius in angstroms? ($\overset{o}{A} = 10^{-10}$ m)