

Weighty Matter, Thick as a Brick and other density Problems

Density

- 1.) What is the density of 100 ml of a gas that has a mass of 0.196 g?
- 2.) A block of wood 3.0 cm on each side has a mass of 27 g. What is the density of this block?
- 3.) An irregularly shaped stone was placed in a graduated cylinder that had 2 ml of water. After placing the stone in the water the graduated cylinder showed 7.0 ml. If the mass of the stone was 25 g. what was its density?
- 4.) The density of a gold is 19.3 g/ml. What is the volume of a 108 g sample of gold.
- 5.) Which would have a greater mass, 5 ml of gold or 90 ml of water? Explain your answer.

Weight

- 1.) A large rock has a mass of 500 kg (on the earth), What is the weight of this rock?
- 2.) The space shuttle can only carry a live load of 6200 newtons. There are 8 astronauts scheduled for the next flight, Can they all ride on this flight?

Astronaut	Mass (kg)
Amy Weiggins	62
Buzz Mcdonald	96
Alex Cauld	92
Yoshiki Morimoto	59
Omar El-Sid	88
Clanci Banner	82
Yuri Bremmer	79
LaDonna Bates	66