

Chpt 13 rev 5

1. What pressure do I exert on the ground if I'm 92 kg and one foot is an average of 9 cm wide and 30 cm long (I'm on one foot and consider the foot a rectangle)? How many atmospheres is this?
2. What force is applied by the big piston if the smaller one is $\frac{1}{4}$ the diameter of the larger one? think ratios!
3. What pressure is exerted by 100. m of water? ... 100. m of air?
4. 27 ml of water are displaced by a submerged object. What force does the water exert on the object? What does the object appear to weigh in water if its mass is 37 g? What is its density? ...its S.G.?
5. An object floats and displaces 33 ml of water. What buoyancy force does the water exert? What is its apparent weight? What is its density if its volume is 47 ml?