Name: _____

1. A marble cylinder that has a diameter of 42.0 cm and stands 1.25 m tall rests on a flat tile deck. What is the pressure exerted on the deck by the cylinder?

2. What is the force exerted on the surface of a bowling ball that has a diameter of 32.0 cm immersed in water to a depth of 555 m?

3. A man weighs like 786 N. He lies on a bed of nails. Find the average pressure exerted on him by each of the nail heads. Figure that there are 950 nails in contact with the man and that the point of each is slightly flattened and has a diameter of 2.00 mm.

4. A sheet of paper lies on a table. The paper measures 20.0 cm by 30.0 cm. Calculate the force exerted on the paper by the atmosphere. Figure that the pressure exerted by the atmosphere is 1.013 x 10^5 Pa.

5. A submarine in the Pacific Ocean cruises along at a depth of 678 m. Find (a) the pressure acting on the sub and (b) the force exerted on a hatch that measures 1.00 m by 1.50 m.

6. What is the (a) buoyant force acting on a cube of copper that measures 2.00 cm on its each side if it is immersed in water and (b) the apparent weight of the cube?