

Name: _____

QUIZ – Pascal's Principle

Date: _____ Period: _____

Answer all questions on a separate sheet. As always, show your work.

Define the following terms in *your own words*.

1. Pressure:
2. Pascal's Principle:
3. Absolute Pressure:
4. Atmospheric Pressure:

Answer the following questions:

5. A water bed is 2.00 m on a side and 30.0 cm deep.
 - a. Find its weight.
 - b. Find the pressure exerted by the bed on the floor if the bed rests on its side.
6. In a car lift, compressed air exerts a force on a piston with a radius of 5.00 cm. This pressure is transmitted to a second piston, of radius 15.0 cm.
 - a. What force must the compressed air exert in order to lift a car weighing 1.33×10^4 N?
 - b. What air pressure produces this force? Neglect the weights of the pistons.