

Chapter 6 Review

1. What is the unit of pressure called and what does it equal?
2. What do we call pressure exerted equally on an object from different directions?
3. Why doesn't air pressure crush your body?
4. What is the formula for calculating pressure?
5. What is the pressure resulting from a force of 80-N exerted over an area of 5 m^2 ?
6. As you move higher what happens to air pressure?
7. What happens to pressure as you go deeper in the ocean?
8. How many times greater than normal air pressure is the pressure in the deepest parts of the ocean?
9. What are the three principles related to pressure that we studied?
10. State each.

11. Name some common devices that use Bernoulli's principle.
12. Name an organ that uses Pascal's principle.
13. Which principle explains a car's braking system?
14. Which explains why smoke rises up a chimney?
15. Which explains why airplanes fly?
16. Which explains why a piece of wood floats?

17. What is the definition of a fluid?

18. What effect does a buoyant force have on a submerged object?

19. What is density?

20. What is the formula for density?

21. What happens to an object in a fluid if its density is equal to that of the fluid?

22. In a hydraulic device, the surface area of the small piston is 10 cm^2 and the surface area of the large piston is 50 cm^2 . To lift a 200-N barrel placed on the large piston, what force must be applied to the small piston?