

Knowledge Review

Chapter 1

1. True or False. An object is neutrally buoyant when it displaces an amount of water less than its own weight.

2. Explain why buoyancy control, both on the surface and underwater, is one of the most important skills you can master.

3. Fill in the blanks with the appropriate words: freshwater or saltwater.

”The same object would be more buoyant in _____ than it would be in _____.”

4. True or False. Because water is denser than air, the pressure change for a given distance ascent or descent is significantly greater in water than in air.

5. Complete the following chart for a sealed flexible bag, full of air at the surface.

Depth	Pressure	Air Volume	Air Density
0m/0ft	1 bar/ata	1	x 1
10m/33ft		1 / 2	
30m/99ft		1 / 4	
40m/132ft	5 bar/ata		x 5

6. Check the statement that gives the best definition for a squeeze.
 - a. A condition that causes pain and discomfort when the pressure outside an air space of your body is less than the pressure inside an air space.

 - b. A condition that causes pain and discomfort when the pressure inside an air space of your body is less than the pressure of outside an air space.

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7. Check each statement that describes a technique used to equalize air spaces during descent:
 - a. Block your nose and attempt to gently blow through it.
 - b. Swallow and wiggle the jaw from side to side.
 - c. Block your nose and attempt to gently blow through it while swallowing and wiggling the jaw from side to side.
8. State how often you should equalize your air spaces during descent.
9. True or False. “If you feel discomfort in your ears while descending, continue downward until the discomfort is gone.”
10. State the most important rule in scuba diving.
11. Select the statement that gives the best definition of a reverse block.
 - a. A condition that occurs when expanding air cannot escape from a body air space during ascent, causing pain and discomfort.
 - b. A condition that occurs when expanding air escapes from a body air space during ascent, causing pain and discomfort.
12. Describe what action you should take if you feel discomfort during ascent due to air expansion, whether in your ears, sinuses, stomach, intestines or teeth.

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13. When scuba diving, why must your nose be enclosed in the mask?
14. Explain the best way to prevent water from entering your scuba tank.
15. Select the appropriate answer. The most important feature for consideration when purchasing a regulator is:
- a. The color
 - b. The number of hoses it has
 - c. Ease of breathing
 - d. Size

Student Diver Statement: I've completed this Knowledge Review to the best of my ability, and any questions I answered incorrectly or incompletely I've had explained to me, and I understand what I missed.

Name: _____ Date: _____

You have permission to print only one copy of this Knowledge Review – to be answered by you and turned in to your instructor.