

KNOWLEDGE REVIEW – Answer Key

Self-Reliant Diver

1. **FALSE** Once you become a self-reliant diver, there is no value in diving with a buddy any more.
2. **TRUE** Experienced divers (those with advanced certification and 100+ dives) can dive responsibly without a partner by applying the techniques of diving self-reliance and by appropriately equipping themselves.
3. **TRUE** Self-reliant divers accept the increased risk that comes with diving alone when they choose to, and should ensure their families and loved ones understand their choices.
4. Which areas of preparation increase your self-rescue abilities? (choose all that apply)
 - a. Physical preparation
 - b. Mental preparation
 - c. Equipment preparation
5. A self-reliant diver applies what mentality to stay out of trouble?
 - a. Maintains equipment only if it is broken.
 - b. Thinks about potential problems as part of the dive plan and does not ignore small problems.
 - c. Always goes diving without a buddy.
 - d. Carries a redundant air supply, but no other back-up equipment.
6. **TRUE** The concept of redundancy means you carry a back-up for any equipment which is either critical for survival or critical to the dive objective's success.
7. What specialized equipment is required for a self-reliant diver? (choose all that apply)
 - a. Redundant air source and surface marker buoy
 - b. Redundant depth gauge and bottom timer, or dive computer
 - c. Redundant signaling devices (both audible and visual)
8. **TRUE** A responsible self-reliant diver plans and executes each dive as though it will be necessary to handle all emergencies alone.

9. What is the Surface Air Consumption (SAC) rate for a diver using 80 bar/990 psi while swimming at 20 metres/66 feet for 10 minutes?

METRIC:

- a. 24 l/min
- b. 32 l/min
- c. 18 l/min

IMPERIAL:

- a. 0.88 ft³/min
- b. 1.32 ft³/min
- c. 0.08 ft³/min

10. A diver's SAC rate is 1.8 bar per minute/23 psi per minute. The diver plans another dive using the same size cylinder to 20 metres/66 feet for 28 minutes. How much pressure must be in the cylinder to make the dive including the appropriate reserve?

METRIC:

- a. 1512 litres
- b. 1890 litres
- c. 2268 litres

IMPERIAL:

- a. 52.08 cubic feet
- b. 65.1 cubic feet
- c. 78.12 cubic feet

11. As a self-reliant diver, when boat diving, how do you establish when to turn your dive around and head back to the boat? (choose all that apply)

- a. Dive until you run low on air, then surface and swim back to the boat.
- b. Based on your gas supply, follow the "rule of thirds" – one third out, one third back and one third in reserve.
- c. Halve your gas supply and subtract 15 bar/200 psi and turn your dive around when you reach that gas supply level.
- d. Take your planned bottom time, subtract a reserve of five minutes, and divide the remainder by two. Start to turn your dive when you have reached the time calculated.

12. What should you do when you encounter a problem while diving? (choose all that apply)

- a. Stop and reestablish normal breathing patterns.
- b. Analyze the problem and plan possible appropriate actions.
- c. Take logical action rather than react thoughtlessly.

13. **TRUE** In preparation for the dive, a self-reliant diver will leave dive planning and logistical information with someone who is not going on the dive.

14. **FALSE**. As a self-reliant diver, you're qualified to dive at sites that you are unfamiliar with without receiving a local area orientation.