

Nautical Navigation: Quiz 1

There are three sections: Multiple Choice, True/False, and Short Answer. For the multiple choice, please select the BEST answer from the options provided. If you have any questions, please raise your hand and I will do my best to clarify.

1. What are the Three Norths?
 - a. True North, Map North, Magnetic North
 - b. True North, Grid North, Magnetic North
 - c. Northeast, Northwest, North
 - d. Magnetic North, Polar North, Arctic North

2. What is the difference between a chart and a map?
 - a. A chart shows the different elevations whereas a map doesn't
 - b. A chart is based on the water and a map is based on land
 - c. They are essentially the same thing
 - d. A map contains more detail than a chart

3. A compass points to which north?
 - a. True North
 - b. Grid North
 - c. Magnetic North
 - d. Seismic North

4. A GPS orients to which north (unless programmed otherwise)?
 - a. True North
 - b. Grid North
 - c. Magnetic North
 - d. Seismic North

5. Where can you find True north on a compass rose?
 - a. The inner compass rose
 - b. The outer compass rose
 - c. The compass rose located furthest north on the chart
 - d. The compass rose located furthest south on the chart

6. All of these are parts of a compass EXCEPT _____.
 - a. The magnetic needle
 - b. The "doghouse"
 - c. The bezel
 - d. The trough

7. These lines on a map or chart run North to South and converge at the poles:
 - a. Latitude
 - b. Longitude
 - c. Poles
 - d. Parallels

8. These lines on a map or chart run East to West and are the same distance from each other anywhere in the world:
 - a. Latitude
 - b. Longitude
 - c. Poles
 - d. Parallels

9. What can you use to measure distance on a map or chart?
 - a. Latitude
 - b. Longitude
 - c. Borders
 - d. Compass Rose

10. Shallow water is generally marked with what type of shading on a chart?
 - a. White
 - b. Light Blue
 - c. Dark Blue
 - d. Green

11. How many feet are in a fathom?
 - a. 2
 - b. 4
 - c. 6
 - d. 8

12. What are “soundings”?
 - a. Measurement of the depth of the water
 - b. Measurement of the quality of the water
 - c. Aids to navigation that you can hear
 - d. The current from an outgoing tide

13. What is the difference between Magnetic North and True North?
 - a. Compass Change
 - b. Deviation
 - c. Variation
 - d. Variable Change

True/False

14. [Magnetic Bearing] = [True Bearing] + [Variation]

15. A contour line measures a set interval of distance in elevation or depth.

16. A large scale chart covers a *greater area* than a small scale chart

17. A chart and a map are relatively the same thing.

18. You should never rely on a single aid to navigation to determine your position.

19. The earth's magnetic field is extremely strong.

Variation Problems

1. What is the magnetic bearing?

True Bearing: **110 °**

Variation: **8 ° W**

a. 102°

b. 110°

c. 118°

d. 108°

2. What is the true bearing?

Magnetic Bearing: **300 °**

Variation: **10 ° E**

a. 311°

- b. 290°
- c. 310°
- d. 103°

3. What is the true bearing?

Magnetic Bearing: **180 °**

Variation: **5 ° W**

- a. 185°
- b. 190°
- c. 175°
- d. 580°

Short Answer

1. Looking at a chart, if you see a buoy with **G “1” Fl G 2s**, what would that mean?

2. How many *minutes* are in the following Latitude? **38° 45' 15”**

3. How many *minutes* are in 1 degree?

4. Approximately how many miles does the Magnetic North Pole move each year? Why?