

U.S.C.G. Merchant Marine Exam
Operator Uninspected Passenger Vessels
Q172 Navigation Problems - Chart 12354TR
(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

The following ten problems are to be answered by plotting on chart 12354 TR, Long Island Sound, and using the supporting publications. Each question is completely independent of any other question on this exam. The following information applies to all ten questions.

(The abbreviation "psc" stands for "per standard magnetic compass".)

VARIATION IS 14° W

DEVIATION TABLE

HDG.MAG. DEVIATION

000°	2.0°E
030°	3.0°E
060°	4.0°E
090°	2.0°E
120°	1.0°E
150°	1.0°W
180°	2.0°W
210°	3.5°W
240°	3.0°W
270°	1.5°W
300°	0.0°
330°	1.5°E

1. What course should you steer by your standard magnetic compass (psc), between New Haven Light and Stratford Pt. Light, if the set and drift of the current are 345°T at 3.0 knots, and a northerly wind will cause 1° of leeway? Your engines are making turns for 18.0 knots.
- (A) 266.5°psc
 - (B) 245.0°psc
 - (C) 264.0°psc
 - (D) 247.0°psc

If choice D is selected set score to 1.

2. Your present position is LAT $41^{\circ}07.4'\text{N}$, LONG $72^{\circ}44.0'\text{W}$. Assuming that there is no set and drift, what course must you steer per standard magnetic compass (psc) to a position of LAT $41^{\circ}08.5'\text{N}$, LONG $72^{\circ}28.8'\text{W}$?
- (A) 084°psc
 - (B) 073°psc
 - (C) 097°psc
 - (D) 091°psc

If choice C is selected set score to 1.

3. At 1825 your GPS position is LAT $41^{\circ}04.9'\text{N}$, LONG $72^{\circ}42.1'\text{W}$. You are on course 085° per standard magnetic compass at a speed of 10 knots. At 1910 your GPS position is 1 mile due south of Twenty-Eight Foot Shoal Lighted Buoy. What were your set and drift?
- (A) 054°T at 2.8 knots
 - (B) 233°T at 2.9 knots
 - (C) 051°T at 2.1 knots
 - (D) 227°T at 2.5 knots

If choice A is selected set score to 1.

4. Your vessel is steady on a heading of 160° per standard magnetic compass when you sight Southwest Ledge Light and New Haven Outer Channel Range Rear Light in line dead astern. What is the deviation of the compass based on this observation?
- (A) 5°E
 - (B) 2°W
 - (C) 5°W
 - (D) 2°E

If choice D is selected set score to 1.

5. According to the U.S. Coast Pilot, what is the depth of the channel between State Pier No. 1 and the U.S. Navy Submarine Base in New London Harbor?

- (A) 34 feet (10.3 meters)
- (B) 36 feet (10.9 meters)
- (C) 38 feet (11.5 meters)
- (D) 40 feet (12.1 meters)

If choice B is selected set score to 1.

6. At 2115 your position is LAT 41°14.4'N, LONG 72°07.2'W. At 0015 your position is LAT 41°03.3'N, LONG 72°37.9'W. What was your true course made good?

- (A) 259°T
- (B) 076°T
- (C) 245°T
- (D) 062°T

If choice C is selected set score to 1.

7. You are on course 087° per standard magnetic compass (psc) when you take the following bearings:
Falkner Island Light - 022.0°psc
Horton Point Light - 111.5°psc
Mt. Sinai Breakwater Light - 254.0°psc

What is your position?

- (A) LAT 41°10.5'N, LONG 72°40.5'W
- (B) LAT 41°13.6'N, LONG 72°46.6'W
- (C) LAT 41°07.0'N, LONG 72°44.5'W
- (D) LAT 41°06.8'N, LONG 72°40.7'W

If choice D is selected set score to 1.

8. At 1815 your position is LAT 41°05.5'N, LONG 72°47.3'W. You are making turns for 12.6 knots. What is your ETA at Plum Island Mid Channel Buoy PI (LAT 41°13.3'N, LONG 72°10.8'W)?

- (A) 2028
- (B) 2038
- (C) 2032
- (D) 2019

If choice C is selected set score to 1.

9. You are planning to anchor your vessel at LAT 41°01.1'N, LONG 73°02.8'W. What type of bottom should you expect at this position?

- (A) Gray sand
- (B) Hard sand
- (C) Gray mud
- (D) Soft mud

If choice C is selected set score to 1.

10. What does the chart symbol depicted at LAT 40°58.5'N, LONG 72°43.4'W indicate?

- (A) wreck showing a portion of the hull above the sounding datum
- (B) wreck with only its mast visible
- (C) abandoned lighthouse
- (D) light ship

If choice A is selected set score to 1.