1 97 Ref: Plotting, LOP C
A line connecting all possible positions of your vessel at any given time is a _____.
A. longitude line
B. latitude line
C. line of position
D. fix

2 99 Ref: Plotting, LOP B
A line of position derived by radar range from an identified point on a coast will be a(n) _____.
A. straight line
B. arc
C. parabola
D. line parallel to the coast

3 100 Ref: Plotting, LOP B
A line of position formed by sighting two charted objects in line is called a(n) _____.
A. relative bearing
B. range line
C. track line
D. estimated position

4 102 Ref: Plotting, LOP B
A line of position is _____.
A. a line connecting two charted objects
B. a line on some point of which the vessel may be presumed to be located
C. the position of your vessel
D. not used in a running fix

5 149 Ref: Plotting, LOP B
A radar range to a small, charted object such as a light will provide a line of position in which form?
A. Straight line
B. Arc
C. Parabola
D. Hyperbola

6 203 Ref: Plotting, LOP B
A true bearing of a charted object, when plotted on a chart, will establish a _____.
A. fix
B. line of position
C. relative bearing
D. range

7 652 Ref: Plotting, LOP D
Lines of position may be _____.
A. hyperbolas
B. straight lines
C. arcs
D. All of the above

8 1964 Ref: Plotting, LOP C
You are plotting a running fix. The LOP to be run forward is an arc from a radar range, what technique should be used?
A. The arc should be converted into a straight line using offsets and then run forward.
B. An arc should never be run forward.
C. The position of the object observed should be advanced to the new time and a new arc swung using the radius of the old arc.
D. The distance between LOP's should be added to the radar range and a new arc swung.

9 2050 Ref: Plotting, LOP B
You take a bearing of 043° and 169° of two objects. What bearing of a third object will give the best fix?
A. 356°
B. 102°
C. 144°
D. 201°

10 2051 Ref: Plotting, LOP D
You take a bearing of 043° and 169° of two objects. What bearing of a third object will give the best fix?
A. 356°
B. 073°
C. 192°
D. 309°

11 2052 Ref: Plotting, LOP A
You take a bearing of 086° of a lighthouse. What bearing of another object would give the best fix?
A. 000°
B. 066°
C. 112°
D. 271°

12 2053 Ref: Plotting, LOP D
You take a bearing of 086° of a lighthouse. Which bearing of another object would give the best fix?
A. 291°
B. 261°
C. 242°
D. 196°

13 2054 Ref: Plotting, LOP C
You take a bearing of 142° and 259° of two objects. Which bearing of a third object will give the best fix?
A. 081°
B. 238°
C. 201°
D. 234°

14 2055 Ref: Plotting, LOP A
You take a bearing of 142° and 259° of two objects. What bearing of a third object will give the best fix?
A. 019°
B. 084°
C. 166°
D. 281°

15 2056 Ref: Plotting, LOP D
You take a bearing of 176° of a lighthouse. What bearing of another object would give the best fix?
A. 000°
B. 021°
C. 189°
D. 272°

16 2057 Ref: Plotting, LOP A
You take a bearing of 176° of a lighthouse. Which bearing of another object would give the best fix?
A. 079°
B. 151°
C. 176°
D. 292°

17 2058 Ref: Plotting, LOP D
You take a bearing of 191° and 313° to two objects. Which bearing of a third object will give the best fix?
A. 022°
B. 131°
C. 211°
D. 249°

18 2059 Ref: Plotting, LOP B
You take a bearing of 191° and 313° to two objects. Which bearing of a third object will give the best fix?
A. 001°
B. 069°
C. 209°
D. 356°

19 2060 Ref: Plotting, LOP B
You take a bearing of 264° of a lighthouse. What bearing of another object would give the best fix?
A. 289°
B. 350°
C. 081°
D. 120°

20 2061 Ref: Plotting, LOP C
You take a bearing of 264° of a lighthouse. Which bearing of another object would give the best fix?
A. 291°
B. 059°
C. 182°
D. 239°

21 2062 Ref: Plotting, LOP A
You take a bearing of 313° and 076° of two objects. Which bearing of a third object will give the best fix?
A. 014°
B. 133°
C. 255°
D. 339°

22 2063 Ref: Plotting, LOP B
You take a bearing of 356° of a lighthouse. What bearing of another object would give the best fix?
A. 013°
B. 082°
C. 176°
D. 201°

23 2064 Ref: Plotting, LOP C
You take a bearing of 356° of a lighthouse. Which bearing of another object would give the best fix?
A. 013°
B. 178°
C. 256°
D. 342°

24 2065 Ref: Plotting, LOP D
You take bearings of 313°T and 076°T on two objects. Which bearing of a third object will give the best fix?
A. 048°T
B. 101°T
C. 142°T
D. 187°T

25 27 Ref: Plotting, Position, DR Position C
A chart position enclosed by a semi-circle is a(n) _____.
A. fix
B. estimated position
C. dead reckoning position
D. running fix

26 46 Ref: Plotting, Position, DR Position A
A dead reckoning (DR) plot _____.
A. ignores the effect of surface currents
B. is most useful when in sight of land
C. must be plotted using magnetic courses
D. may be started at an assumed position

27 47 Ref: Plotting, Position, DR Position D
A dead reckoning (DR) plot _____.
A. must utilize magnetic courses
B. must take set and drift into account
C. should be replotted hourly
D. should be started each time the vessel's position is fixed

28 135 Ref: Plotting, Position, DR Position A
A position obtained by applying only your vessel's course and speed to a known position is a _____.
A. dead-reckoning position
B. fix
C. probable position
D. running fix

29 136 Ref: Plotting, Position, DR Position B
A position obtained by applying ONLY your vessel's course and speed to a known position is a _____.
A. fix
B. dead-reckoning position
C. running fix
D. probable position

30 137 Ref: Plotting, Position, DR Position C
A position obtained by applying ONLY your vessel's course and speed to a known position is a _____.
A. fix
B. running fix
C. dead-reckoning position
D. probable position

31 138 Ref: Plotting, Position, DR Position D
A position obtained by applying ONLY your vessel's course and speed to a known position is a _____.
A. running fix
B. probable position
C. fix
D. dead-reckoning position

32 1140 Ref: Plotting, Position, DR Position D051NG C
The position labeled "D" was plotted because _____.
A. the vessel's speed changed at 1125
B. a dead reckoning position is plotted within 30 minutes of a running fix
C. a dead reckoning position is plotted for each course change
D. All of the above

33 1141 Ref: Plotting, Position, DR Position D051NG D
The position labeled "E" was plotted because _____.
A. the vessel's position was fixed at 1145
B. a dead reckoning position is plotted within a half-hour of each course change
C. the position is a running fix
D. a dead reckoning position is plotted for each speed change

34 1597 Ref: Plotting, Position, DR Position B
When possible, a DR plot should always be started from where?
A. Any position
B. A known position
C. An assumed position
D. None of the above

35 2045 Ref: Plotting, Position, DR Position D
You should plot a dead reckoning position after every _____.
A. course change
B. speed change
C. fix or running fix
D. All of the above

36 2046 Ref: Plotting, Position, DR Position A
You should plot your dead reckoning position _____.
A. from every fix or running fix
B. from every estimated position
C. every three minutes in pilotage waters
D. only in pilotage waters

37 2047 Ref: Plotting, Position, DR Position C
You should plot your dead reckoning position _____.
A. from every estimated position
B. every three minutes in pilotage waters
C. from every fix or running fix
D. only in pilotage waters

38 2081 Ref: Plotting, Position, DR Position D
Your dead reckoning position should be plotted _____.
A. whenever an estimated position is plotted
B. when it agrees with your GPS position
C. when coming on or going off soundings
D. at least every hour on the hour in the open waters of the sea

39 28 Ref: Plotting, Position, Estimated Position B
A chart position enclosed by a square is a(n) _____.
A. fix
B. estimated position
C. dead reckoning position
D. running fix

40 141 Ref: Plotting, Position, Estimated Position A
A position that is obtained by applying estimated current and wind to your vessel's course and speed is a(n) _____.
A. estimated position
B. dead reckoning position
C. fix
D. None of the above

41 172 Ref: Plotting, Position, Estimated Position C
A single line of position combined with a dead-reckoning position results in a(n) _____.
A. running fix
B. fix
C. estimated position
D. assumed position

42 1745 Ref: Plotting, Position, Estimated Position C
Which position includes the effects of wind and current?
A. Dead reckoning position
B. Leeway position
C. Estimated position
D. Set position

43 1746 Ref: Plotting, Position, Estimated Position D
Which position includes the effects of wind and current?
A. Dead reckoning position
B. Leeway position
C. Set position
D. Estimated position

44 1764 Ref: Plotting, Position, Estimated Position B
Which statement about an estimated position is TRUE?
A. It is more reliable than a fix based on radar bearings.
B. It may be based on a single LOP or questionable data.
C. When a 3-LOP fix plots in a triangle, the center of the triangle is the estimated position.
D. It is usually based on soundings.

45 2032 Ref: Plotting, Position, Estimated Position D
You determine your vessel's position by taking a range and bearing to a buoy. Your position will be plotted as a(n) _____.
A. running fix
B. fix
C. dead-reckoning position
D. estimated position

46 123 Ref: Plotting, Position, Fix A
A navigator fixing a vessel's position by radar _____.
A. can use radar information from one object to fix the position
B. should never use radar bearings
C. should only use radar bearings when the range exceeds the distance to the horizon
D. must use information from targets forward of the beam

47 142 Ref: Plotting, Position, Fix C
A position that is obtained by using two or more intersecting lines of position taken at nearly the same time, is a(n) _____.
A. dead-reckoning position
B. estimated position
C. fix
D. running fix

48 229 Ref: Plotting, Position, Fix B
A vessel's position should be plotted using bearings of _____.
A. buoys close at hand
B. fixed known objects on shore
C. fixed objects
D. All of the above

49 1377 Ref: Plotting, Position, Fix C
What describes an accurate position that is NOT based on any prior position?
A. Dead-reckoning position
B. Estimated position
C. Fix
D. Running fix

50 1931 Ref: Plotting, Position, Fix C
You are navigating in pilotage waters using running fixes. The maximum time between fixes should be about _____.
A. 4 hours
B. 1 hour
C. 30 minutes
D. 5 minutes

51 1997 Ref: Plotting, Position, Fix D
You are taking bearings on two known objects ashore. The BEST fix is obtained when the angle between the lines of position is _____.
A. 30°
B. 45°
C. 60°
D. 90°

52 2042 Ref: Plotting, Position, Fix C
You plot a fix using three lines of position and find they intersect in a triangle. The actual position of the vessel _____.
A. is outside of the triangle
B. may be anywhere in the triangle
C. may be inside or outside of the triangle
D. is the geometric center of the triangle

53 2043 Ref: Plotting, Position, Fix D
You plot a fix using three lines of position and find they intersect in a triangle. You should plot the position of the vessel _____.
A. outside of the triangle
B. anywhere in the triangle
C. on the line of position from the nearest object, between the other two lines of position
D. in the geometric center of the triangle

54 139 Ref: Plotting, Position, Running Fix D
A position obtained by taking lines of position from one object at different times and advancing them to a common time is a(n) _____.
A. dead-reckoning position
B. estimated position
C. fix
D. running fix

55 304 Ref: Plotting, Position, Running Fix D051NG C
As shown, the position labeled C was plotted because _____.
A. the vessel's speed changed
B. the vessel's course changed form due North to due East
C. running fixes are better estimates of true position than dead-reckoning positions
D. All of the above are correct

56 477 Ref: Plotting, Position, Running Fix B
How many fixed objects are needed to plot a running fix?
A. None
B. One
C. Two
D. Three

57 1142 Ref: Plotting, Position, Running Fix D051NG B
The position labeled C is a(n) _____.
A. fix
B. running fix
C. estimated position
D. dead reckoning position

58 1963 Ref: Plotting, Position, Running Fix A
You are plotting a running fix in an area where there is a determinable current. How should this current be treated in determining the position?
A. The course and speed made good should be determined and used to advance the LOP.
B. The drift should be added to the ship's speed.
C. The current should be ignored.
D. The set should be applied to the second bearing.

59 1981 Ref: Plotting, Position, Running Fix A
You are running parallel to the coast and estimate that the current is against you. In plotting a running fix using bearings from the same object on the coast, the greatest safety margin from inshore dangers will result if what speed is used to determine the fix?
A. Minimum speed estimate
B. Maximum speed estimate
C. Average speed estimate
D. A running fix should not be used under these conditions.

60 1982 Ref: Plotting, Position, Running Fix B
You are running parallel to the coast and plotting running fixes using bearings of the same object. You are making more speed than assumed for the running fix. In relation to the position indicated by the fix you will be _____.
A. closer to the coast
B. farther from the coast
C. on the track line ahead of the fix
D. on the track line behind the fix

61 1983 Ref: Plotting, Position, Running Fix A
You are running parallel to the coast and take a running fix using bearings of the same object. If you are making less speed than used for the running fix, in relation to the position indicated by the fix, you will be _____.
A. closer to the coast
B. farther from the coast
C. on the track line ahead of the fix
D. on the track line behind the fix

62 152 Ref: Plotting, Relative, Relative D
A relative bearing is always measured from _____.
A. true north
B. magnetic north
C. the vessel's beam
D. the vessel's head

63 1472 Ref: Plotting, Relative, Relative C
What is the relative bearing of an object broad on the port beam?
A. 315° B. 300° C. 270° D. 235°

64 1473 Ref: Plotting, Relative, Relative A
What is the relative bearing of an object broad on the port bow?
A. 315° B. 330° C. 345° D. 360°

65 1474 Ref: Plotting, Relative, Relative B
What is the relative bearing of an object broad on the port quarter?
A. 195° B. 225° C. 240° D. 265°

66 1475 Ref: Plotting, Relative, Relative D
What is the relative bearing of an object broad on the starboard beam?
A. 045° B. 060° C. 075° D. 090°

67 1476 Ref: Plotting, Relative, Relative B
What is the relative bearing of an object broad on the starboard bow?
A. 030° B. 045° C. 060° D. 075°

68 1477 Ref: Plotting, Relative, Relative C
What is the relative bearing of an object broad on the starboard quarter?
A. 090° B. 105° C. 135° D. 150°

69 1478 Ref: Plotting, Relative, Relative C
What is the relative bearing of an object broad on the starboard quarter?
A. 045° B. 090° C. 135° D. 225°

70 1479 Ref: Plotting, Relative, Relative C
What is the relative bearing of an object dead astern?
A. 000° B. 090° C. 180° D. 270°

71 1480 Ref: Plotting, Relative, Relative D
What is the relative bearing of an object on the port beam?
A. 045° B. 090° C. 180° D. 270°

72 1481 Ref: Plotting, Relative, Relative D
What is the relative bearing of an object sighted dead ahead?
A. 180° B. 090° C. 015° D. 000°

73 2026 Ref: Plotting, Relative, Relative A
You are using a radar in which your own ship is shown at the center, and the heading flash always points to 0°. If bearings are measured in relation to the flash, what type of bearings are produced?
A. Relative
B. True
C. Compass
D. Magnetic

74 1936 Ref: Plotting, Relative, True C
You are on course 027°T and take a relative bearing to a lighthouse of 220°. What is the true bearing to the lighthouse?
A. 113° B. 193° C. 247° D. 279°

75 1937 Ref: Plotting, Relative, True B
You are on course 030°T. The relative bearing of a lighthouse is 45°. What is the true bearing?
A. 015° B. 075° C. 255° D. 345°

76 1943 Ref: Plotting, Relative, True A
You are on course 180°T and take a relative bearing of a lighthouse of 225°. What is the true bearing of the lighthouse?
A. 045°
B. 135°
C. 180°
D. 270°

77 1946 Ref: Plotting, Relative, True B
You are on course 222°T and take a relative bearing of a lighthouse of 025°. What is the true bearing to the lighthouse?
A. 197°
B. 247°
C. 315°
D. 335°

78 1949 Ref: Plotting, Relative, True D
You are on course 277°T and take a relative bearing of a lighthouse of 045°. What is the true bearing to the lighthouse?
A. 038°
B. 232°
C. 315°
D. 322°

79 1952 Ref: Plotting, Relative, True B
You are on course 344°T and take a relative bearing of a lighthouse of 090°. What is the true bearing to the lighthouse?
A. 016°
B. 074°
C. 254°
D. 270°

80 1953 Ref: Plotting, Relative, True D
You are on course 344°T and take a relative bearing of a lighthouse of 270°. What is the true bearing to the lighthouse?
A. 016°
B. 074°
C. 090°
D. 254°

81 1954 Ref: Plotting, Relative, True D
You are on course 355°T and take a relative bearing of a lighthouse of 275°. What is the true bearing of the lighthouse?
A. 080°
B. 085°
C. 280°
D. 270°

82 1955 Ref: Plotting, Relative, True C
You are on course 357°T and take a relative bearing of a lighthouse of 180°. What is the true bearing to the lighthouse?
A. 003°
B. 227°
C. 177°
D. 363°