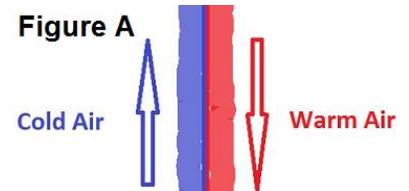


Meteorology Practice Test

1. Transition zones between two air masses of different densities are called what?
2. A _____ front occurs when a cold air mass replaces a warmer one.
3. A _____ front occurs when a warm air mass replaces a colder one.



4. What type of front is pictured in Figure A?

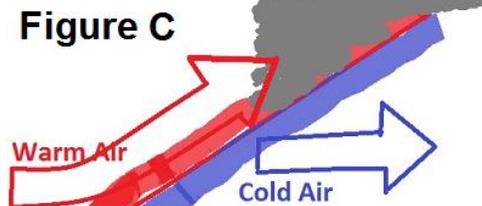
Figure B



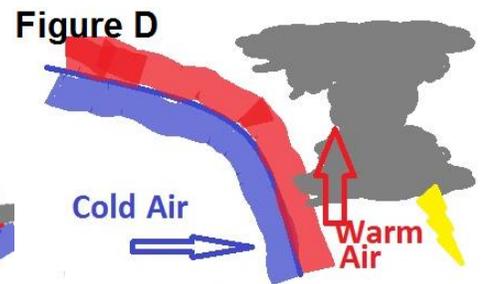
5. What type of front does Figure B represent on a weather map?

6. What type of front is symbolized on a weather map as a solid purple line with alternating triangles and semicircles pointing the same direction?

7. What type of front is pictured in Figure C?

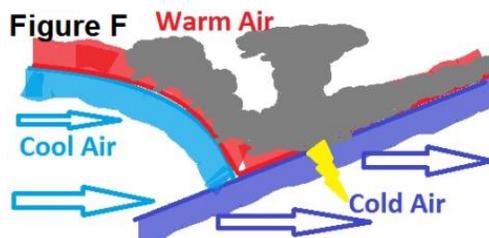
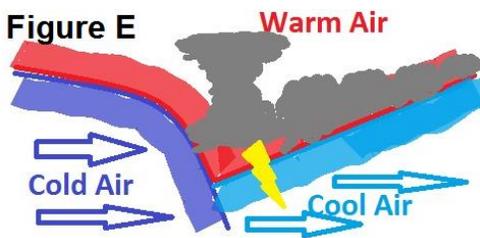


8. What type of front is pictured in Figure D?



9. Figure E pictures a _____ occlusion.

10. Figure F pictures a _____ occlusion.

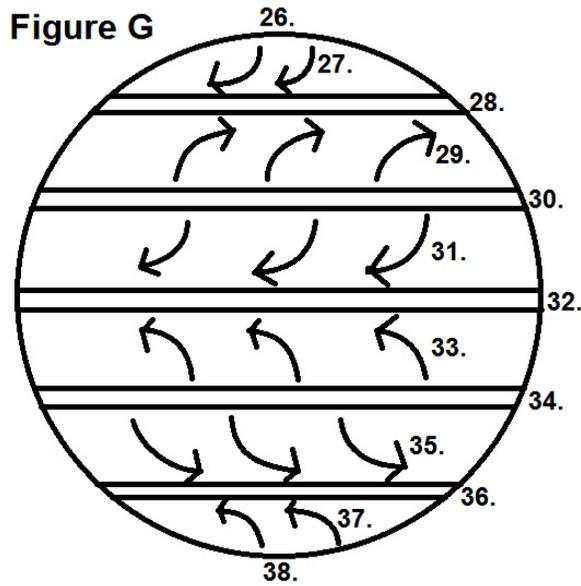


11. What is a boundary that separates a moist air mass from a dry air mass called?

12. True or false: warm fronts generally are faster moving than cold fronts.

13. The layer of the atmosphere closest to the surface of the Earth is the _____.
14. The layer of the atmosphere third closest to the Earth's surface is the _____.
15. The layer of the atmosphere second closest to the Earth's surface is the _____.
16. The layer of the atmosphere fourth closest to the Earth's surface is the _____.
17. Temperature increases with altitude in the _____ and _____.
18. Temperature decreases with altitude in the _____ and _____.
19. The _____ separates the troposphere and stratosphere.
20. The _____ separates the mesosphere and thermosphere.
21. The _____ separates the stratosphere and mesosphere.
22. Meteors disintegrate in which layer of the atmosphere?
23. Most of the ozone layer is located in which layer of the atmosphere?
24. Almost all weather occurs in which layer of the atmosphere?
25. True or false: the tropopause varies in altitude with latitude; 17 kilometers high at the poles and 9 kilometers high at the equator.

For questions 26-38, refer to Figure G



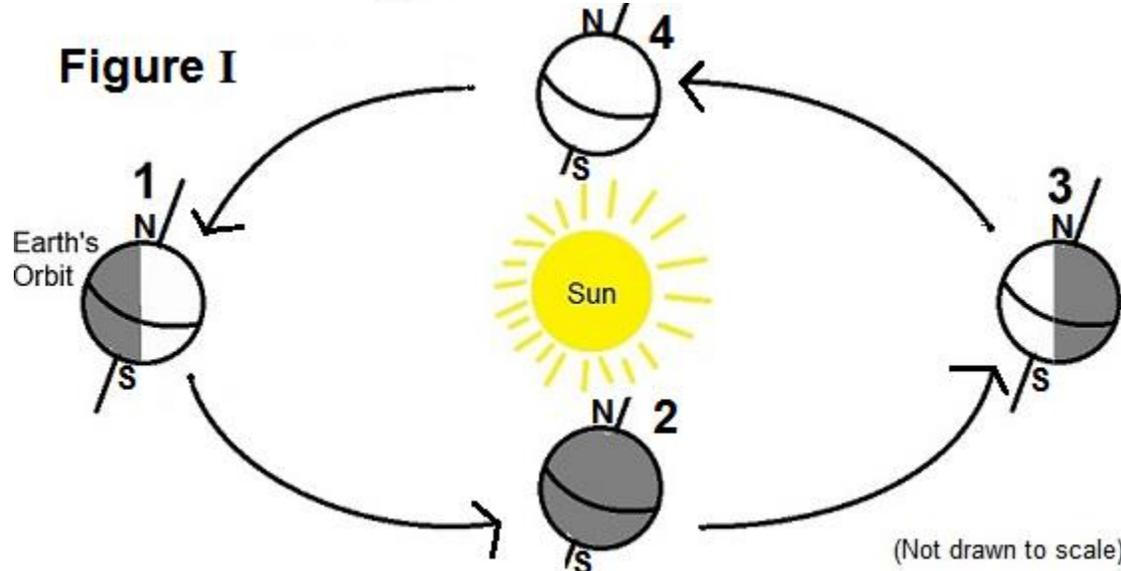
26. Name the pressure belt.
27. Name the prevailing wind pattern.
28. Name the pressure belt.
29. Name the prevailing wind pattern.
30. Name the pressure belt.
31. Name the prevailing wind pattern.
32. Name the pressure belt.
33. Name the prevailing wind pattern.
34. Name the pressure belt.
35. Name the prevailing wind pattern.
36. Name the pressure belt.
37. Name the prevailing wind pattern.
38. Name the pressure belt.

Climate

39. The average temperature of a large city is about 2 degrees Fahrenheit warmer than the surrounding outstate area at similar latitude and elevation. What term describes this phenomenon best?
40. True or false: Weather near a large body of water tends to be warmer in the summer and colder in the winter than the surrounding land area.
41. The Maunder Minimum occurred at the same time as the middle of what climatological event?
42. True or false: the Dalton Minimum lasted approximately from 1730 to 1890 C.E.
43. The Little Ice Age was a period of cooling that occurred after what climatological event?
44. What is the scientific method of dating based on the analysis of patterns of tree growth rings called?
45. True or false: water vapor is not a greenhouse gas.
46. True or false: the urban heat island effect is most noticeable during the day.
47. Thermohaline circulation refers to the global, _____-driven motion of the Earth's oceans
48. What are dark spots on the photosphere of the sun called? Are they warmer or colder than the rest of the photosphere? Are they associated with increased or decreased energy output from the sun?
49. With respect to the plane of Earth's orbit, Earth's axial tilt varies between _____ and _____ degrees (please give answers to the nearest tenth of a degree).
50. Earth's axial precession has a period of roughly _____ years.
51. Name the class on the Köppen climate classification: temperate, dry summers, less than three months with mean temperatures above 10 °C.

52. Figure H depicts the _____ effect.

53. What is the method of lift shown in Figure H?



54. In Figure I, which number refers to the position of the Earth during the June solstice?

55. In Figure I, which season occurs between positions 4 and 1 in the Southern Hemisphere?

56. In Figure I, position 1 marks the beginning of what season in the Northern Hemisphere?

57. In Figure I, which number refers to the position of the Earth during the Northern Hemisphere's vernal equinox?

58. True or false: the Earth reaches perihelion in early January and aphelion in early July.

59. Is the Earth's axial tilt currently increasing or decreasing?

60. Under El Niño conditions, temperatures in British Columbia during its winter are generally _____ than usual.

61. Under El Niño conditions, Madagascar tends to have _____ temperatures and _____ precipitation than usual during its summer.
62. True or false: Under El Niño conditions, from December to January, Florida tends to experience warmer and wetter conditions.
63. True or false: Under La Niña conditions, from December to January, Florida tends to experience cooler and drier conditions.
64. _____ What is another word for axial tilt?
- a) Obliquity
 - b) Precession
 - c) Insolation
 - d) Eccentricity
65. Do ocean currents influence climate?
66. Do fronts influence climate?
67. What is the most significant variable gas by volume in the planetary boundary layer?
68. _____ Which of the following generally has the highest albedo?
- a) Fresh snow
 - b) Water
 - c) Grass
 - d) Blacktop
69. True or false: water's albedo can vary depending on the angle of the incoming solar radiation striking the surface of the water.
70. Tiebreaker #1: how can particulate matter affect atmospheric temperatures on earth?
71. Tiebreaker #2: IPCC is an abbreviation for what?