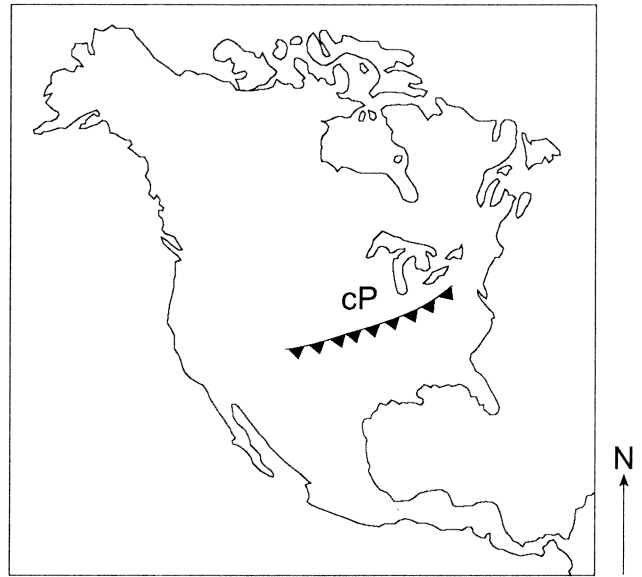


Air Masses

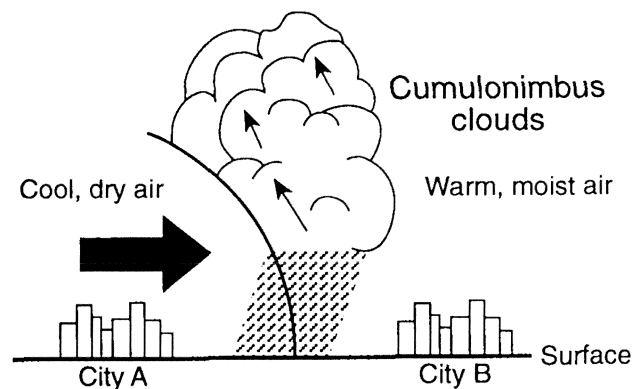
- An air mass classified as mP usually forms over which type of Earth surface?
 - warm land
 - warm ocean
 - cool land
 - cool ocean
- In Connecticut, dry, cool air masses (cP) often interact with moist, warm air masses (mT). Which statement correctly matches each air mass with its usual geographic source region?
 - cP is from the North Atlantic Ocean and mT is from the deserts of the southwestern United States.
 - cP is from northern Canada and mT is from the deserts of the southwestern United States.
 - cP is from northern Canada and mT is from the Gulf of Mexico.
 - cP is from the North Atlantic Ocean and mT is from the Gulf of Mexico.
- Compared to a maritime tropical air mass, a continental polar air mass is
 - cooler and contains less moisture
 - cooler and contains more moisture
 - warmer and contains less moisture
 - warmer and contains more moisture
- Daily weather forecasts are based primarily on
 - ocean currents
 - seismic data
 - phases of the Moon
 - air-mass movements
- Which weather map symbol represents air masses that normally form just south of the United States over the Caribbean Sea?
 - cP
 - cT
 - mP
 - mT
- Compared to a maritime tropical air mass, a maritime polar air mass has a
 - higher temperature and more water vapor
 - higher temperature and less water vapor
 - lower temperature and more water vapor
 - lower temperature and less water vapor
- The properties of an air mass are mostly determined by the
 - rate of Earth's rotation
 - direction of Earth's surface winds
 - source region where the air mass formed
 - path the air mass follows along a land surface
- If a low-pressure system follows a typical storm track across New York State, it will move toward the
 - southeast
 - southwest
 - northeast
 - northwest
- In which direction do the surface winds blow around a high-pressure system in the Northern Hemisphere?
 - clockwise and inward
 - clockwise and outward
 - counterclockwise and inward
 - counterclockwise and outward

- Base your answer to the following question on the weather map of North America below. The map shows the location of a front and the air mass influencing its movement.



Which region is the probable source of the air mass labeled cP on the map?

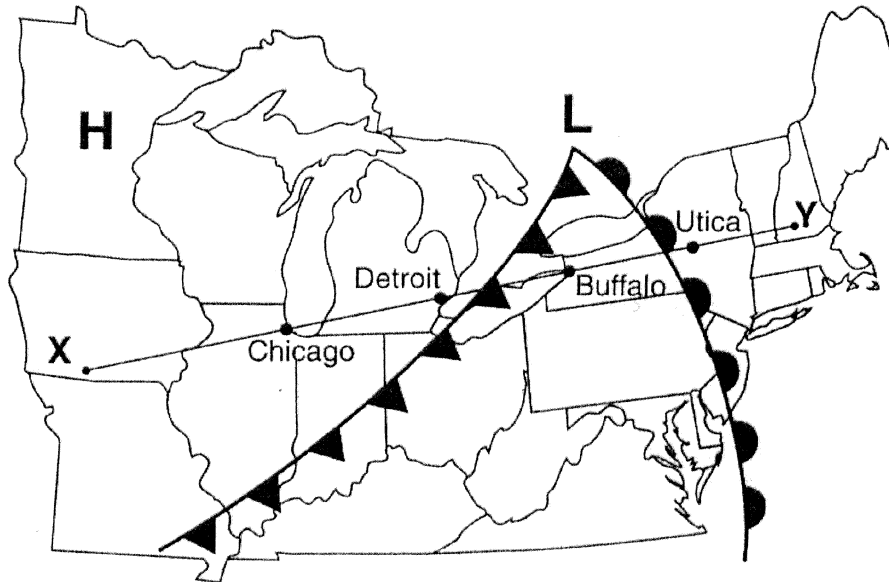
- central Canada
 - southwestern United States
 - North Atlantic Ocean
 - Gulf of Mexico
- The cross section below shows a weather front. The large arrow shows the direction of the movement of the cool air mass.



Which type of weather front is shown?

- cold front
- warm front
- occluded front
- stationary front

12. Base your answer to the following question on the weather map below, which shows a high-pressure center (H) and a low-pressure center (L), with two fronts extending from the low-pressure center. Points X and Y are locations on the map connected by a reference line.



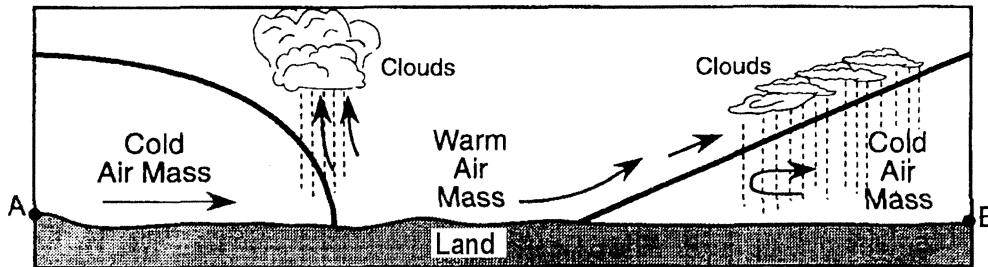
Which type of front is located between Buffalo and Detroit?

- (1) stationary (2) warm (3) occluded (4) cold

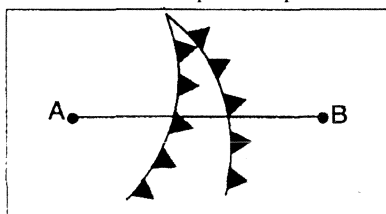
13. Which statement best explains why precipitation occurs at frontal boundaries?

- (1) Cold fronts move slower than warm fronts.
 (2) Cold fronts move faster than warm fronts.
 (3) Warm, moist air sinks when it meets cold, dry air.
 (4) Warm, moist air rises when it meets cold, dry air.

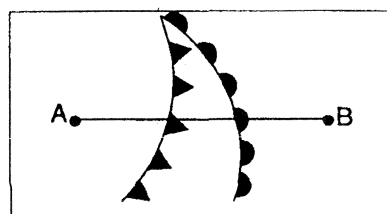
14. The diagram below represents a cross section of air masses and frontal surfaces along line AB. The dashed lines represent precipitation.



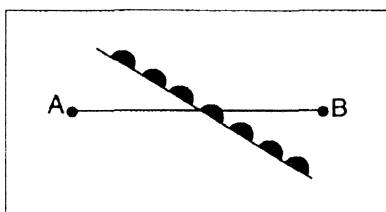
Which weather map best represents this frontal system?



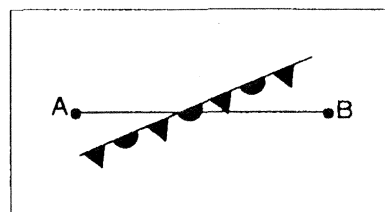
(1)



(3)



(2)



(4)