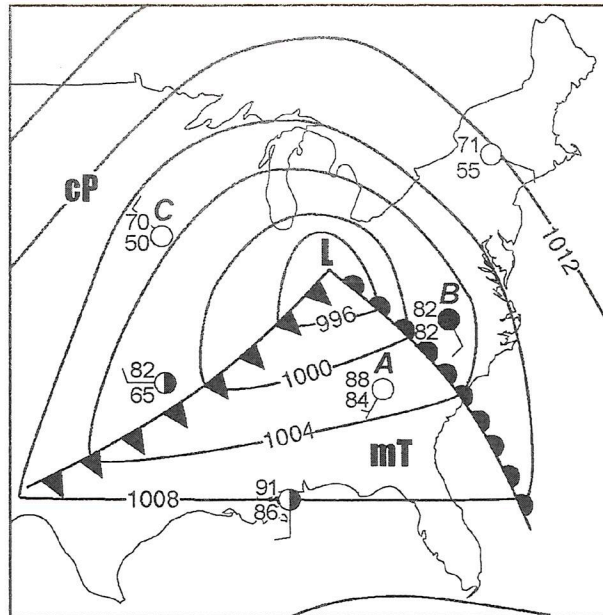
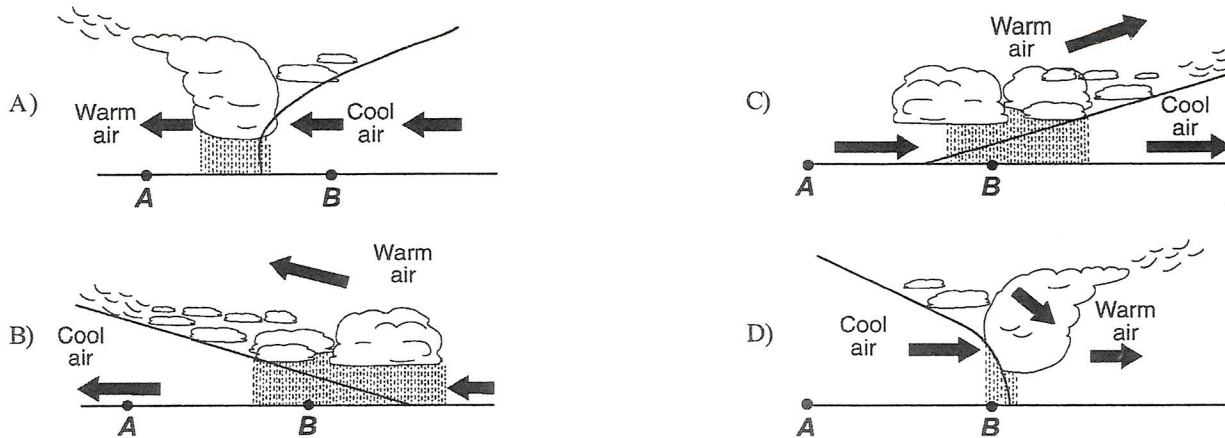


Name: _____

1) The weather map below shows a low-pressure system and some atmospheric conditions at weather stations A, B, and C.



Which cross section *best* represents the air masses, air movement, clouds, and precipitation occurring behind and ahead of the warm front located between stations A and B on the map?

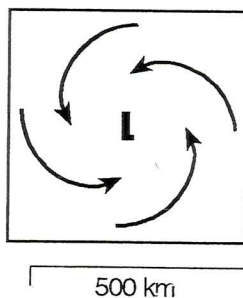


- 2) Weather along most fronts is usually cloudy with precipitation because the warm air along most fronts is usually
- A) sinking and cooling, causing water to evaporate
 - B) rising and cooling, causing water vapor to condense
 - C) sinking and warming, causing water to evaporate
 - D) rising and warming, causing water vapor to condense

- 3) The weather map of North America below shows the location of a front and the air mass influencing its movement.



- Which type of front and frontal movement is shown on the weather map?
- A) warm front moving southeastward
 B) cold front moving northwestward
 C) cold front moving southeastward
 D) warm front moving northwestward
- 4) Which type of air mass usually contains the most moisture?
- A) **cP**
 B) **mP**
 C) **cT**
 D) **mT**
- 5) Compared to a maritime tropical air mass, a maritime polar air mass has a
- A) lower temperature and less water vapor
 B) higher temperature and less water vapor
 C) lower temperature and more water vapor
 D) higher temperature and more water vapor
- 6) In New York State, 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?
- A) **cP** is from the North Atlantic Ocean and **mT** is from the deserts of the southwestern United States.
 B) **cP** is from the North Atlantic Ocean and **mT** is from the Gulf of Mexico.
 C) **cP** is from northern Canada and **mT** is from the Gulf of Mexico.
 D) **cP** is from northern Canada and **mT** is from the deserts of the southwestern United States.
- 7) A map view of surface air movement in a low-pressure system is shown below.

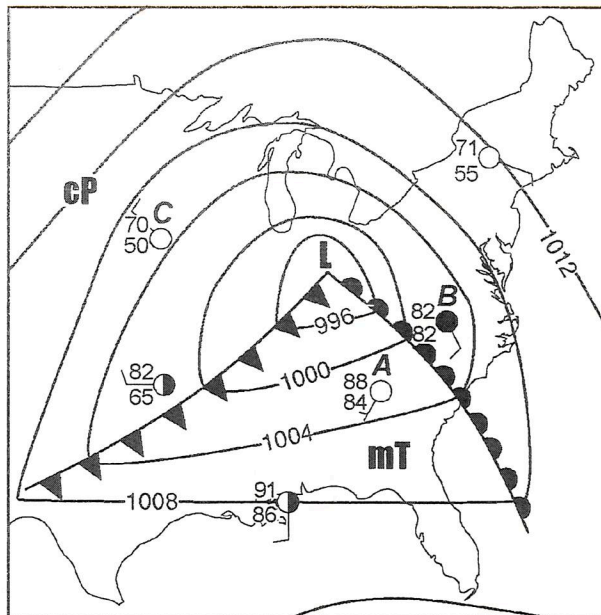


- The air near the center of this low-pressure system usually will
- A) rise and form clouds
 B) evaporate into a liquid
 C) reverse direction
 D) squeeze together to form a high-pressure system
- 8) What is the general pattern of air movement on March 21 at Earth's Equator (0°)?
- A) upward, due to high temperature and low pressure
 B) downward, due to low temperature and high pressure
 C) downward, due to high temperature and low pressure
 D) upward, due to low temperature and high pressure

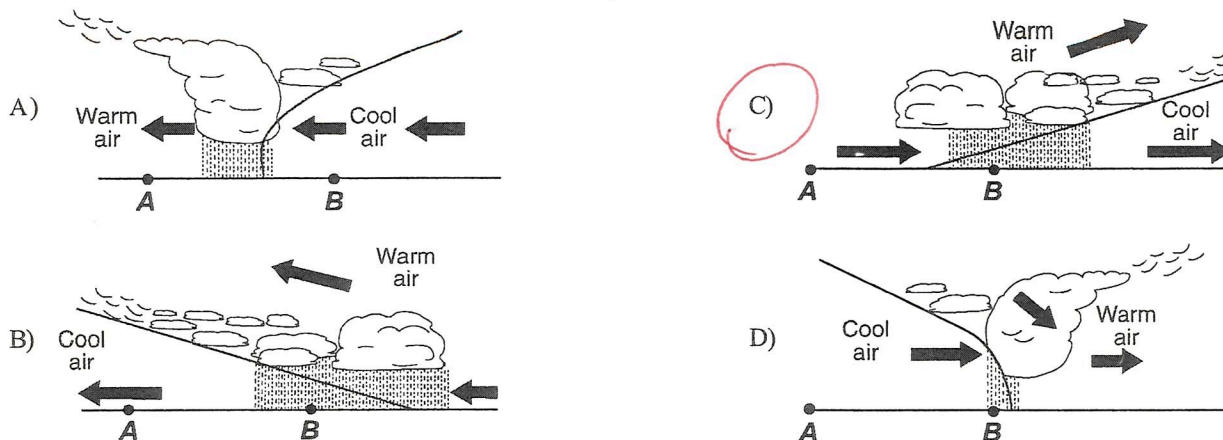
Name: _____

Key

1) The weather map below shows a low-pressure system and some atmospheric conditions at weather stations A, B, and C.



Which cross section *best* represents the air masses, air movement, clouds, and precipitation occurring behind and ahead of the warm front located between stations A and B on the map?



2) Weather along most fronts is usually cloudy with precipitation because the warm air along most fronts is usually

- A) sinking and cooling, causing water to evaporate
- B) rising and cooling, causing water vapor to condense
- C) sinking and warming, causing water to evaporate
- D) rising and warming, causing water vapor to condense

The weather map of North America below shows the location of a front and the air mass influencing its movement.



Which type of front and frontal movement is shown on the weather map?

- A) warm front moving southeastward
- B) cold front moving northwestward
- C) cold front moving southeastward
- D) warm front moving northwestward

Which type of air mass usually contains the most moisture?

- A) cP
- B) mP
- C) cT
- D) mT

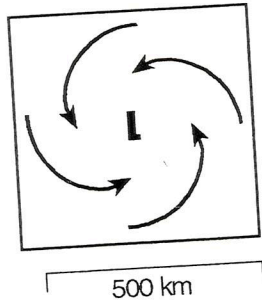
Compared to a maritime tropical air mass, a maritime polar air mass has a

- A) lower temperature and less water vapor
- B) higher temperature and less water vapor
- C) lower temperature and more water vapor
- D) higher temperature and more water vapor

In New York State, 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?

- A) cP is from the North Atlantic Ocean and mT is from the deserts of the southwestern United States.
- B) cP is from the North Atlantic Ocean and mT is from the Gulf of Mexico.
- C) cP is from northern Canada and mT is from the Gulf of Mexico.
- D) cP is from northern Canada and mT is from the deserts of the southwestern United States.

A map view of surface air movement in a low-pressure system is shown below.



The air near the center of this low-pressure system usually will

- A) rise and form clouds
- B) evaporate into a liquid

- C) reverse direction
- D) squeeze together to form a high-pressure system

What is the general pattern of air movement on March 21 at Earth's Equator (0D)?

- A) upward, due to high temperature and low pressure
- B) downward, due to low temperature and high pressure

- C) downward, due to high temperature and low pressure
- D) upward, due to low temperature and high pressure