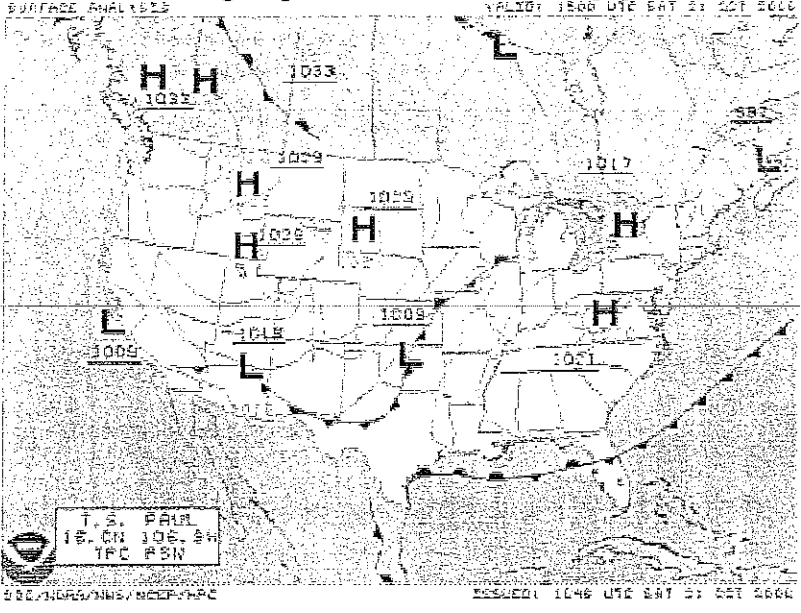
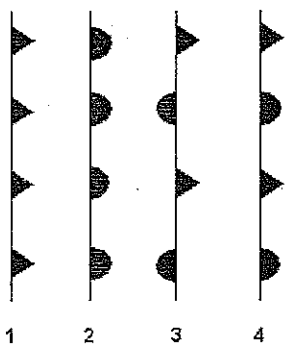


Weather Unit - Exam Review

Use the following map to answer the following questions:

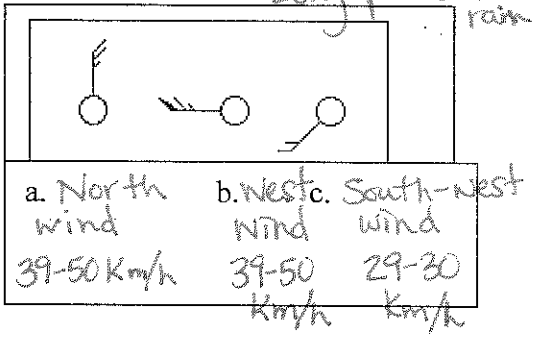


1. What type of pressure system is on the West Coast of the U.S.? What is the pressure measurement?
Low pressure system, 1009 mb
2. What type of weather is associated with this pressure system?
Rainy/Stormy
3. What type of front is going through Texas? What type of weather are they having?
*Cold front
Thunderstorms*
4. List the location of one of the high pressure systems. What is the pressure measurement at that high pressure system? What type of weather is most likely found there?
South Dakota, Fair weather,
5. What type of front is found in Western Canada? What type of weather are they having?
*Stationary
Long periods of rain*



List the type of front associated with each symbol to the left and the type of weather associated with each along with the formation of each.

Explain the meaning of each symbol to the right.

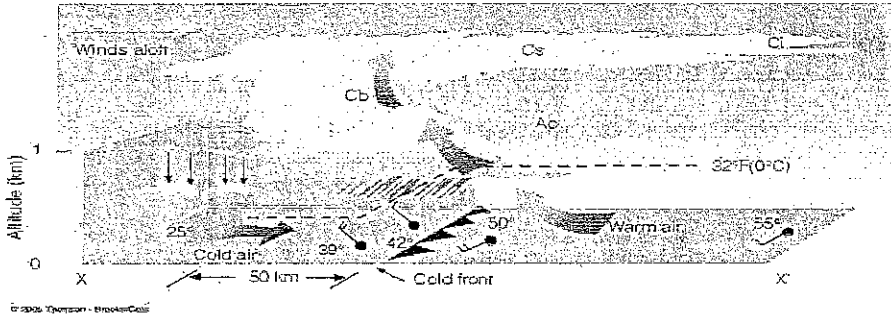


- #1 Cold front - thunderstorms, form when a cold air mass quickly takes over a warm air mass.
- #2 Warm front - forms when warm air pushes into cold air. Light rain
- #3 Stationary front - when a cold and warm air mass collide and there is no movement, Rainy weather.
- #4 Occluded front - cold takes over a warm front. Stormy/rain

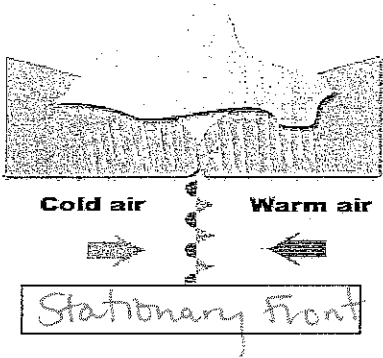
6. Define the term isobars and describe what they tell us on a weather map.

Isobars are lines that indicate areas that have the same air pressure, temperature, or humidity.

7. Identify the type of front each diagram below represents. Describe the weather conditions at these fronts.

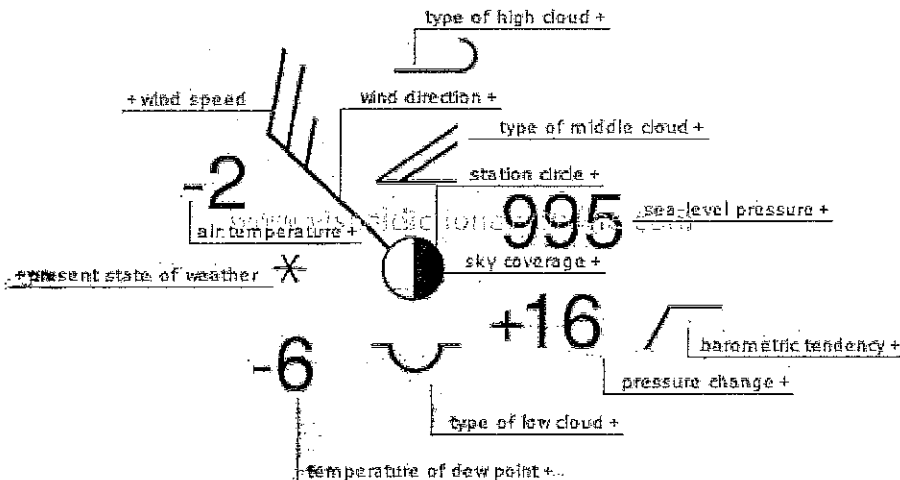


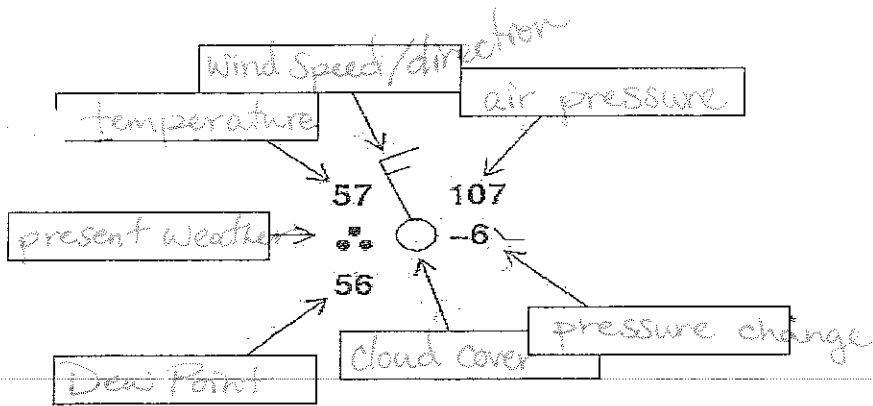
Cold front
Thunderstorms



Rain of extended period of time.

8. Label the diagram below and then using the information given in the station model, fill in the blanks below.





Temperature 57° F

Atmospheric Pressure 107

Weather Rain

Dew Point 56° F

Sky Cover Clear

Wind 19-28 Km/h

9. How do we use high and low pressure systems to predict the weather?

High → fair weather

Low → cloudy, rain, and stormy

10. Describe the difference between a watch and a warning.

watch - conditions are right for severe weather.

warning - severe weather has been sighted and it is advised to take cover.

11. What is the Fujita scale? What does it measure? Locate Tornado Alley.

The Fujita scale is a tornado intensity scale that measures the damage caused by a tornado. → Texas, Oklahoma, Kansas, Nebraska, Iowa, & parts of other states.

12. What is the Saffir-Simpson Scale? What does it measure? What is the determining factor?

The Saffir-Simpson scale is a hurricane wind scale that goes from 1-5. It measures the speed of the wind, which determines the hurricane's rating.

13. Contrast a tropical storm (depression) with a hurricane.

Tropical storm has wind speeds less than 75 mph or 119 Km/h.

Hurricane has wind speed greater than 75 mph or 119 Km/h.

14. Types of Precipitation - rain, snow, sleet, hail define each type

Rain - water falling in temperatures above freezing.

Snow - forms when air temperatures are at least below freezing so water vapor changes directly to a solid.

Sleet - forms when snow melts and then refreezes near the ground.

Hail - precipitation in the forms of lumps, caused by strong up drafts forcing the hailstone up. This causes the hailstone to melt and refreeze and when it is large enough it falls.

15. Compare and contrast weather and climate.

Weather is the present state of the atmosphere and climate is the average weather over a long period of time.

16. **Types of Air Masses** – continental, maritime, polar, tropical

1. define air mass

continental – dry

polar – cold

maritime – moist/wet

tropical – warm/hot

ex: polar continental – cold dry air mass.

2. where each is formed

maritime – formed by coast.

polar – higher latitudes

continental – over land, not near coast

tropical – near equator

3. basic temperature associated with each

17. **Landforms** – Coastal Plain, interior Plain, mountain, and plateau

1. describe each

Mountain – is a raised piece of land with high, steep peaks.

Plateau – Flat raised areas that have been uplifted by forces in the earth.

Coastal plain – large relatively flat area, low-lying near seacoast.

Interior plain – large relatively flat area, low-lying in the middle or away from seacoast.

2. define topography

– is the surface features of the earth.

ex. mountains, plateau, etc.

3. how different landforms affect climate

– If you live near the coast the summers are cooler and the winters are warmer because of the water.

– Mountains produce rain shadows on the leeward side of the mountain. This is caused by the mountain forcing the air upward so it condenses forming clouds and will then rain on the other side.

18. **Types of Clouds** – cirrus, stratus, and cumulus

1. what weather is associated with each type

cirrus – associated with fair weather (may indicate approaching storms)

stratus – associated with both fair weather & precipitation

cumulus – associated with fair weather and storms.

2. what does nimbus mean – dark clouds associated with precipitation.