

Name \_\_\_\_\_

Use the following pictures to answer questions 1-4

# Midterm Review Free Response HW

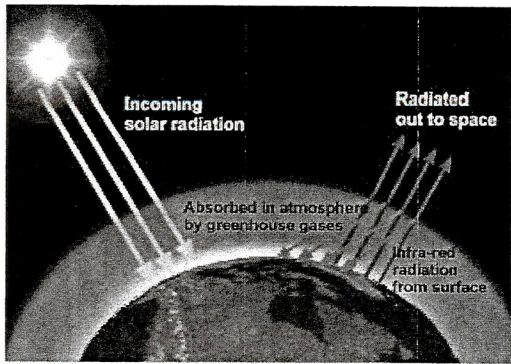


Figure 1

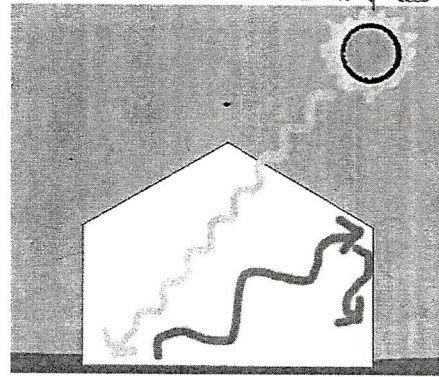
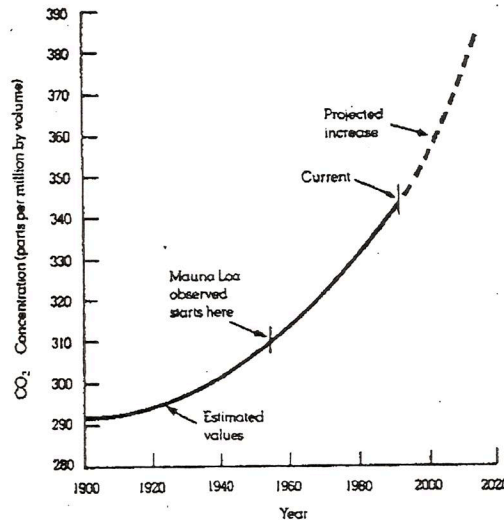


Figure 2

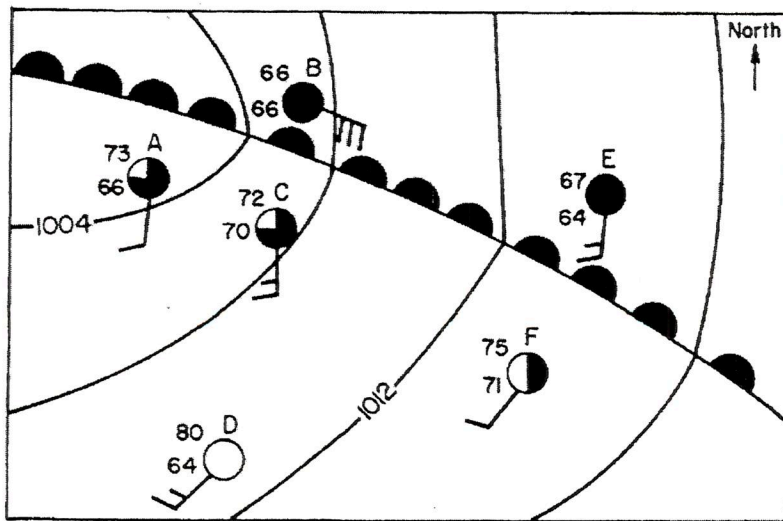
- 1) How does carbon dioxide get into the atmosphere?
- 2) What are both of these pictures symbolizing?
- 3) What is a negative effect of too much carbon dioxide in the atmosphere?
- 4) Name at least two precautionary measures that could be made to prevent the addition of more carbon dioxide into the atmosphere.

Use the following graph to answer questions 5-7



- 5) What is the current concentration of carbon dioxide?
- 6) What could have caused an increase in carbon dioxide in the 1920's?
- 7) What could happen to the polar ice caps and eventually Long Island if this trend continues?
- 8) What is the Rate of CO<sub>2</sub> Change from 1920 to 2000?

Use the following map to answer questions 9-12



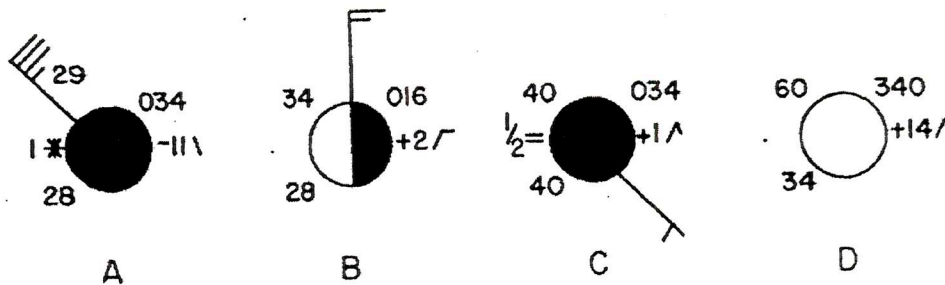
9) What type of front is shown and what direction is it moving?

10) The wind speed at B is \_\_\_\_\_

11) The temperature at E is \_\_\_\_\_

12) A possible air pressure for C is \_\_\_\_\_

Use the following pictures to answer questions 13-22



13) Temperature at A is \_\_\_\_\_

14) Cloud cover at B is \_\_\_\_\_

15) Station with the lowest humidity is \_\_\_\_\_

16) Station with the lowest pressure is \_\_\_\_\_

17) Station with an air pressure of 1034.0 mb is \_\_\_\_\_

18) Which station has the highest relative humidity and what is it? \_\_\_\_\_

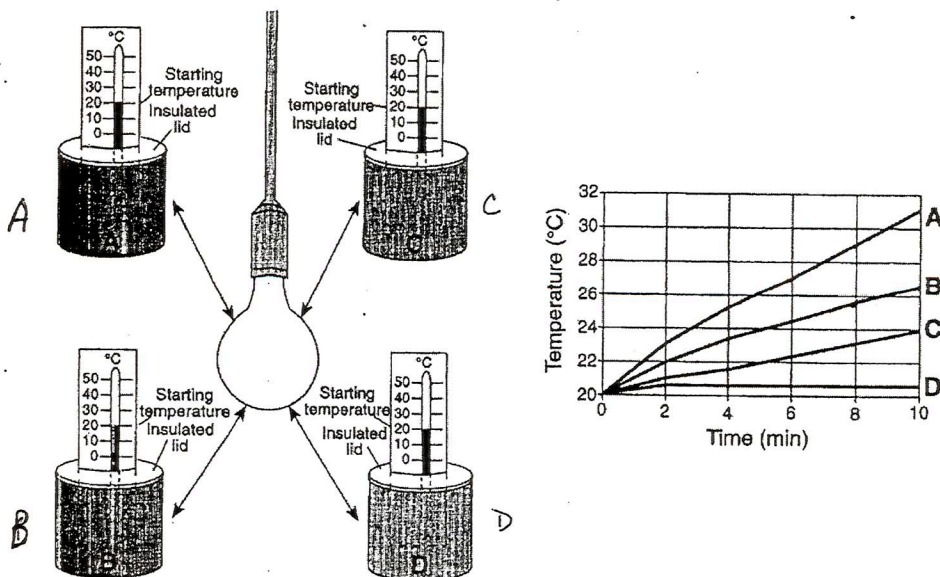
19) The pressure at B is \_\_\_\_\_

20) Greatest chance of rain is at station \_\_\_\_\_

21) Station receiving precipitation is \_\_\_\_\_

22) Station with the highest pressure is \_\_\_\_\_

Use the following diagram to answer questions 23-27



23) What is the starting temperature in degrees Fahrenheit? \_\_\_\_\_

24) Why are all of the samples equal distances from the heat source?

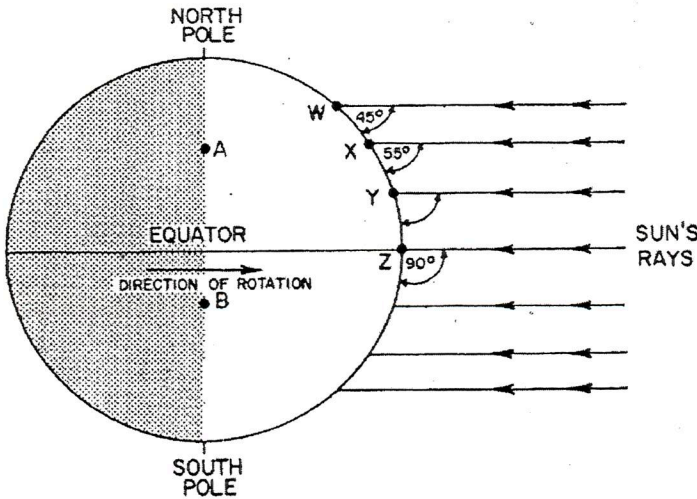
25) What is a possible explanation for the sudden increase in the temperature of A?

26) What is the rate of change for sample A? Sample C? Show all work.

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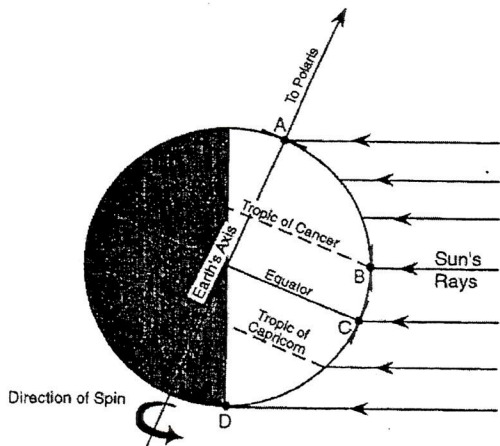
27) If the samples were left to cool, which sample would radiate the most infrared energy? Why?

Use the following diagrams to answer questions 28-34



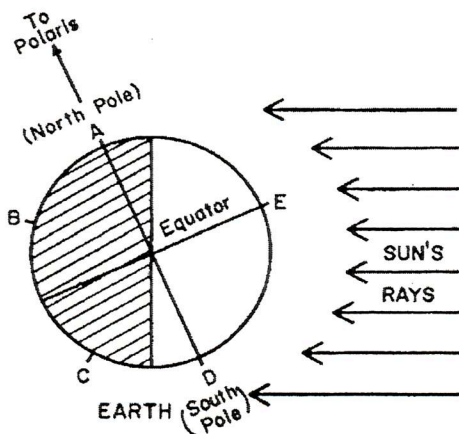
- 28) What is the date shown in the diagram? \_\_\_\_\_
- 29) What do A and B have in common? \_\_\_\_\_
- 30) What time is it? \_\_\_\_\_
- 31) What happens to the amount of sunlight as you move from location Z to location W? \_\_\_\_\_
- 32) Where are the direct rays of the sun hitting the Earth on this date? \_\_\_\_\_
- 33) Which direction will an observer have to look to see the sun rise on this date? \_\_\_\_\_
- 34) Which direction will an observer have to look to see the sun set on this date? \_\_\_\_\_

Use the following diagrams to answer questions 35-38



- 35) What is the date shown in the diagram? \_\_\_\_\_
- 36) What happens to the amount of sunlight as you move from location C to location A? \_\_\_\_\_
- 37) Where are the direct rays of the sun hitting the Earth on this date? \_\_\_\_\_
- 38) Which direction will an observer in New York have to look to see the sun set on this date? \_\_\_\_\_

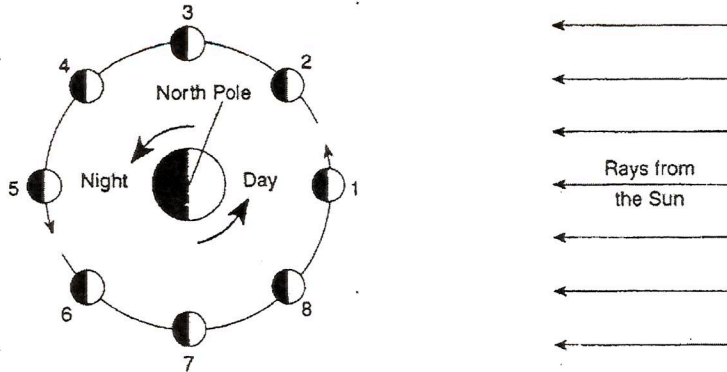
Use the following diagrams to answer questions 39-44



- 39) What is the date shown in the diagram? \_\_\_\_\_
- 40) What happens to the amount of sunlight as you move from location E to location A? \_\_\_\_\_
- 41) Where are the direct rays of the sun hitting the Earth on this date? \_\_\_\_\_
- 42) Which direction will an observer in New York have to look to see the sun rise on this date? \_\_\_\_\_
- 43) Which location will have 24 hrs. day/ 0 hrs. night? \_\_\_\_\_
- 44) Which location will have 12 hrs. day/ 12 hrs. night? \_\_\_\_\_



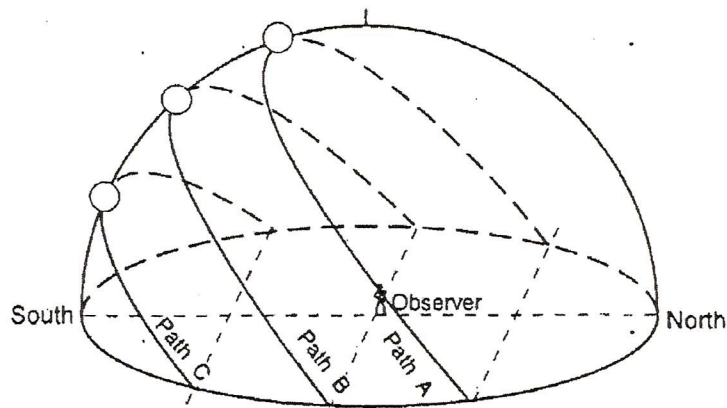
Use the following diagram to answer questions 45-52



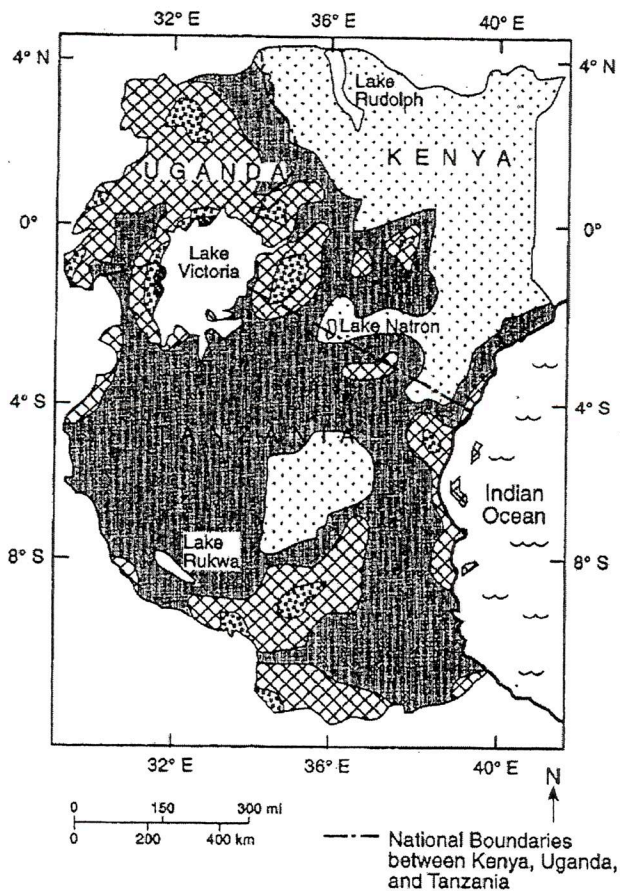
(Not drawn to scale)

- 45) Which position is the new moon? \_\_\_\_\_
- 46) Which position is the first quarter? \_\_\_\_\_
- 47) Which position is the waxing cresant? \_\_\_\_\_
- 48) Which position could be a solar eclipse? \_\_\_\_\_
- 49) Which position is the full moon? \_\_\_\_\_
- 50) Which position is the third quarter? \_\_\_\_\_
- 51) Which position is the waning gibbous? \_\_\_\_\_
- 52) Which position could be a lunar eclipse? \_\_\_\_\_

Use the following diagram to answer questions 53-61



- 53) Label the Zenith.
- 54) Which path could be the summer in New York? \_\_\_\_\_ What is the date? \_\_\_\_\_
- 55) Which path could be the winter in New York? \_\_\_\_\_ What is the date? \_\_\_\_\_
- 56) Direction of sun rise for path B is \_\_\_\_\_
- 57) If this location was in New York State, draw the possible position of Polaris.
- 58) What causes the sun to move in the paths shown in the diagram? \_\_\_\_\_
- 59) How would the observers shadow change between path C and path A? \_\_\_\_\_
- 60) Which direction will the shadow point at noon on any day at this location? \_\_\_\_\_
- 61) Label the position of the sun at 3:00 pm along path A.



Use the map to the left to answer questions 61-63

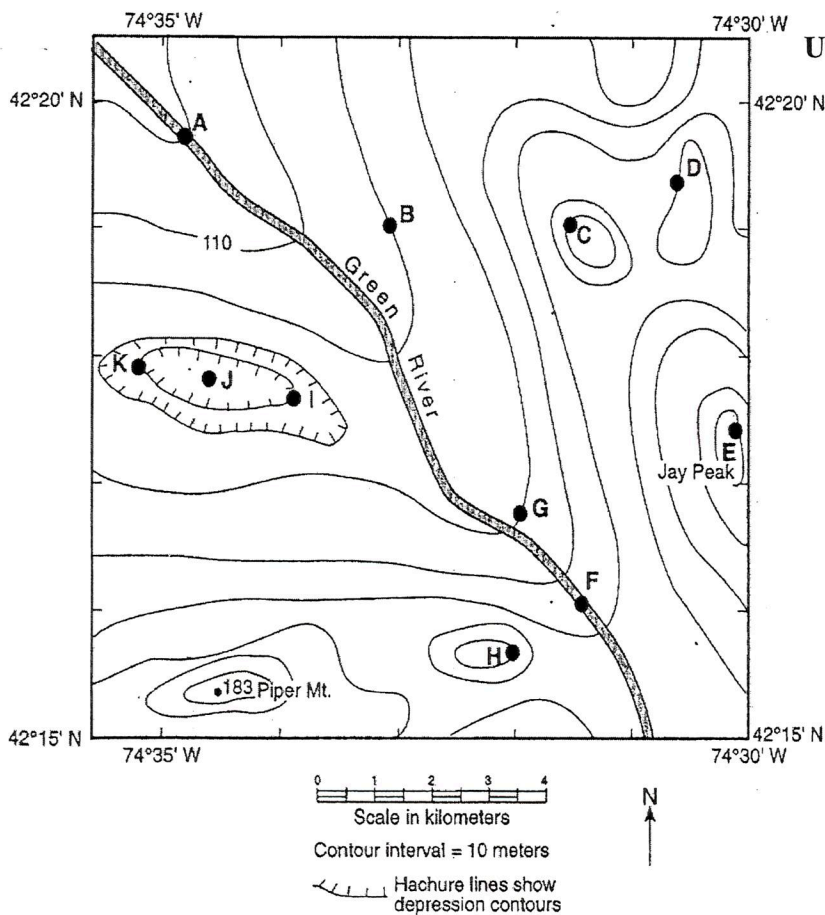
61) Use the latitude and longitude to determine what continent the map is from? \_\_\_\_\_

62) What is the approximate latitude and longitude of Lake Natron? \_\_\_\_\_

63) What is the approximate distance between Lake Natron and Lake Rukwa?

Miles \_\_\_\_\_

Km \_\_\_\_\_



Use the map to the left to answer questions 64-71

64) What is the elevation of C? \_\_\_\_\_

65) Highest elevation of Jay Peak is \_\_\_\_\_

66) Possible elevation of J? \_\_\_\_\_

67) Approximate latitude of point F. \_\_\_\_\_

68) Approximate longitude of point H. \_\_\_\_\_

69) Latitude and longitude of point K. \_\_\_\_\_

70) What other point has the same elevation as point C? \_\_\_\_\_

71) Determine the gradient from point A to point G. Show all work including the formula.