



Snow and Ice

A Hemispherical View

Name(s) _____

Date _____

Instructor/Class _____

Please answer the following questions.

1. What kind of cover is at these locations?

(a) (83, 260)

(b) (218, 130)

(c) (354, 132)

(d) (159, 183)

2. What's happened at each of the locations?

(a) (83, 260)

(b) (218, 130)

(c) (354, 132)

(d) (159, 183)

3. Here are those same locations again. What are the values at these locations in the January 2000 image?

(a) (83, 260)

(b) (218, 130)

(c) (354, 132)

(d) (159, 183)

4. What is the area of snow cover in pixels shown in the Measure Results box?
(Hint: Move the Maximum slider bar to 10. Leave the Threshold window open.)

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- Near 7,000 pixels
 - Approximately 8,600 pixels
 - About 22,200 pixels
 - Around 67,600 pixels

5. How many square kilometers were covered in snow in January 2000?

- Approximately 37.7 million sq km
- Approximately 45 million sq km
- Approximately 13.6 million sq km
- Approximately 100.9 million sq km

6. How many square kilometers were covered by snow in June 2000?

(Hint: You may have to set the scale again (see Question #5) and reset the threshold (see Question #4).

- Approximately 100.9 million sq km
- Approximately 12.2 million sq km
- Approximately 15 million sq km
- Approximately 11.4 million sq km

7. What's the percent decrease in snow cover? (Hint: Don't forget to scroll to June 2001 for the second question!)

a) _____ (b) _____

8. What is the area of sea ice cover in January 2000? (Hint: Set Threshold at 135-145. If you need help with setting the scale, go back to Question #5.)

- Approximately 136 million sq km
- Approximately 47.6 million sq km
- Approximately 13.5 million sq km
- Approximately 17.4 million sq km

9. What is the area of sea ice in June 2000? (Hint: Set Threshold at 135-145.)

a) _____ (b) _____

10. Where did the snow and ice go? Fill in the blanks:

As the summer _____ approaches, the Northern Hemisphere is warmed by the _____. When the snow and ice melt, a small amount of water _____, and

the rest runs into streams, lakes, groundwater, and rivers, eventually ending up back in the _____ all over the globe. Then ...

11. Where did the snow and ice go? Continue filling in the blanks:

The sun causes more _____ around the globe over the oceans, which turns into _____, which then release the moisture as _____. Because oceans are so huge and contain so much water, they can affect the _____ of the entire planet.

12. These images are for the Northern Hemisphere. How would the snow and ice-cover vary in the Southern Hemisphere?

There would be more snow and ice in _____ than in _____.