

M O D E R N E A R T H S C I E N C E

Section 24.1

Atmospheric Moisture

Read each statement below. If the statement is true, write *T* in the space provided. If the statement is false, write *F* in the space provided.

- _____ 1. Sublimation is the process by which a solid changes to a liquid.
- _____ 2. Humid air usually has a higher dew point than dry air.
- _____ 3. Water usually condenses when air temperature falls below dew point.
- _____ 4. The amount of water vapor that a volume of air can hold decreases as air temperature rises.
- _____ 5. The heat energy necessary for evaporation of ocean water is absorbed from the sun.

Read each question and answer it in the space provided.

- 6. What is the name of the instrument that uses wet-bulb and dry-bulb thermometers to measure relative humidity? _____
- 7. In what form is most atmospheric water found? _____

| Sample | T °C | Mass of Water Vapor | Mass of Water Vapor at Saturation |
|--------|------|---------------------|-----------------------------------|
| 1 | 20° | 12 g | 17 g |
| 2 | 32° | 14 g | 34 g |
| 3 | 41° | 20 g | 56 g |

- 8. What is the relative humidity of air sample 2 in the table? _____
- 9. What is the principal source of atmospheric moisture? _____
- 10. What forms on surfaces when the dew point is below the freezing temperature of water? _____