SECTION **12.3** *Gathering Weather Data*

In your textbook, read about weather instruments.
For each item in Column A, write the letter of the matching item in Column B.

<table>
<tr><td colspan="2" align="center">**Column A**</td><td align="center">**Column B**</td></tr>
<tr><td>_____</td><td>**1.** An instrument that measures the height of cloud layers and estimates cloud cover</td><td>**a.** thermometer</td></tr>
<tr><td>_____</td><td>**2.** An instrument that measures wind speed and direction</td><td>**b.** barometer</td></tr>
<tr><td>_____</td><td>**3.** An instrument that measures temperature</td><td>**c.** anemometer</td></tr>
<tr><td>_____</td><td>**4.** An instrument that measures air pressure</td><td>**d.** hygrometer</td></tr>
<tr><td>_____</td><td>**5.** A balloon-borne package of sensors that gathers upper-level weather data</td><td>**e.** ceilometer</td></tr>
<tr><td>_____</td><td>**6.** An instrument that measures relative humidity</td><td>**f.** radiosonde</td></tr>
</table>

In your textbook, read about radar and weather satellites.
Answer the following questions.

7. What is the Doppler effect? How do meteorologists use it to predict weather?

_____

_____

_____

_____

_____

8. How do meteorologists combine data from weather radar and weather satellites to gather information about the atmosphere?

_____

_____

_____

_____

9. What is infrared imagery? How is it used?
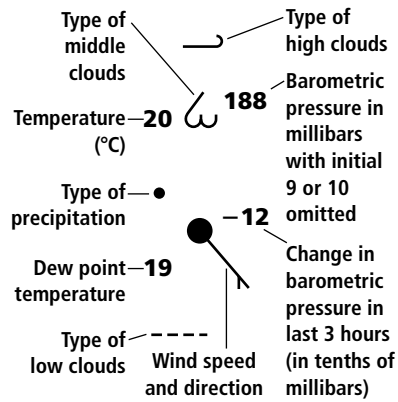
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SECTION 12.4   *Weather Analysis*

In your textbook, read about station models.

Study the station model. Then answer the questions that follow.

1. What is a station model?

_____

_____

2. What are the advantages of using station models?

_____

_____

_____

3. List three types of information shown on a station model.

_____

_____

_____

4. For the station shown, what is the temperature?

_____

5. For the station shown, how has the barometric pressure changed in
the last 3 hours?

_____

_____