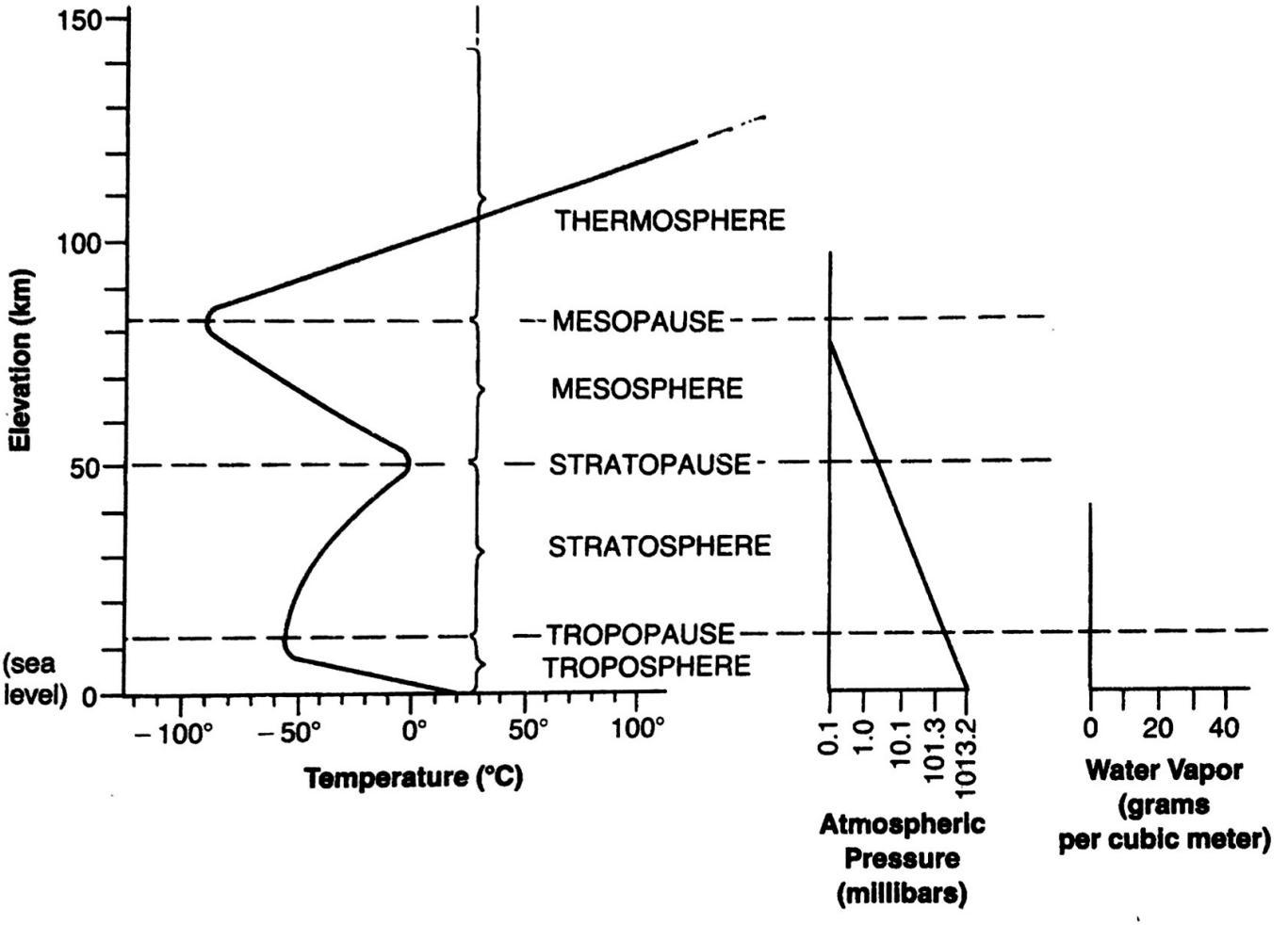
Atmosphere and Elevation

The diagram below illustrates the manner in which the temperature, atmospheric pressure, and water vapor content vary with changes in elevation.



Base your answers to the following questions on the information contained in the three graphic relationships in the diagram.

1. Using the words "increases, decreases, or remains the same," complete the following statements.

   a. As elevation in the troposphere increases, atmospheric temperature _____.

   b. As elevation in the stratosphere increases, atmospheric temperature _____.

   c. As elevation in the mesosphere increases, atmospheric temperature _____.

d. As elevation in the thermosphere increases, atmospheric temperature _____.

e. As elevation above sea level increases, atmospheric pressure _____.

f. As elevation above sea level increases, water vapor content of the atmosphere _____.

2. Which layer of the atmosphere do you live in? _____

3. Explain why clouds are generally observed to form only in the troposphere.

_____

_____

_____

4. What is the atmospheric pressure at sea level? _____

5. At approximately what height in the atmosphere would the atmospheric pressure be at 1.0 millibars? _____

6. List the four layers of the atmosphere in the table below, then correctly complete the table by determining the thickness of each layer and entering the information in the appropriate spaces. (Note: There is insufficient information to determine the thickness for one of the layers; leave the appropriate space blank.)

Layers of Atmosphere	Thickness (km)

7. The four layers of the atmosphere are separated by thinner layers called "pauses." Describe the change that occurs in the pattern of atmospheric temperature at the "pauses." _____

_____

_____

_____

8. a. At approximately what elevation does the coldest temperature occur in the atmosphere? _____

b. What name is given to this point in the atmosphere? _____

9. What is the temperature at the stratopause? _____