



Venus's atmosphere is much thicker and denser than Earth's atmosphere and is almost entirely composed of carbon dioxide. We can conclude that the temperature on Venus's surface is _____.

A) extremely high during the day and extremely low at night

B) similar to that on Earth's surface

C) much higher than that on Earth's surface

D) much lower than that on Earth's surface



Which layer of Earth's atmosphere protects the planet by burning up most meteors before they reach the surface?

- A) Thermosphere
- B) Mesosphere
- C) Stratosphere
- D) Troposphere



What percentage of Earth's atmosphere is made up of nitrogen?

A) 0.93%

B) 78%

C) 50%

D) 21%



What is the layer of the atmosphere that is preferred for airplane flights?

- A) Troposphere
- B) Ionosphere
- C) Stratosphere
- D) Mesosphere



At an altitude of 1000 m above sea level, the reading of a mercury barometer is mmHg.

A) fluctuating below and above 760

B) above 760

C) below 760

D) equal to 760



A scientist measured the atmospheric pressure with a mercury barometer in a certain area, and it read 780 mmHg. This means _____

- A) the area is at sea level
- B) the area is below sea level
- C) atmospheric pressure is equal to 780 millibar
- D) the area is above sea level



Which of the following gases is characterized by its ability to absorb most short-wave ultraviolet radiation received on Earth from the Sun?

- A) N_2
- B) O_2
- C) Ar
- D) O_3



_____ is the coldest layer in the atmosphere with the lowest temperature.

- A) The mesosphere
- B) The stratosphere
- C) The ionosphere
- D) The troposphere



What is the layer of the atmosphere that reflects radio waves below 30 MHz back into Earth's surface?

- A) The troposphere
- B) The ozone layer
- C) The mesosphere
- D) The ionosphere



Which of the following gases protects Earth's surface from the destructive effect of UV radiation?

A) CO_2

B) O_2

C) N_2

D) O_3



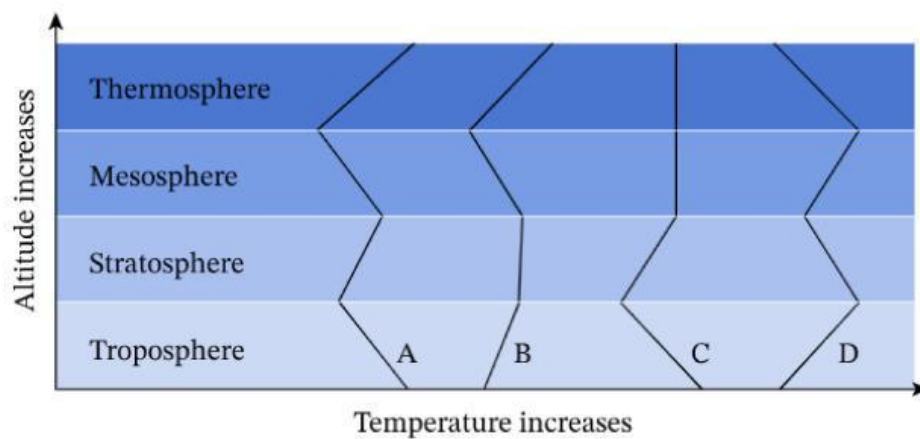
What kind of radio waves are needed to communicate with the International Space Station (ISS)?

- A) Radio waves in the low-frequency range that are used for local communication
- B) Radio waves below 30 MHz that can penetrate the atmosphere
- C) Radio waves above 30 MHz that are less affected by the ionosphere
- D) Radio waves that are used in AM radio broadcasting



Which of the shown trends represents the general change in temperature in the layers of the atmosphere?

- A) Trend C
- B) Trend A
- C) Trend B
- D) Trend D





_____represents about 21% of the volume of the atmosphere.

- A) N_2
- B) O_3
- C) O_2
- D) H_2O



Why is the troposphere thicker at the equator than at the poles?

- A) The equator receives more sunlight, causing the air to expand.
- B) Earth's rotation compresses the poles, making the troposphere thinner.
- C) The equator has a higher altitude than the poles.
- D) The poles receive more sunlight, causing the air to shrink.



As altitude increases in the troposphere, what happens to both temperature and pressure?

- A) Temperature increases and pressure decreases.
- B) Temperature and pressure both decrease.
- C) Temperature and pressure both increase.
- D) Temperature decreases and pressure increases.