



مؤسسة الإمارات للتعليم المدرسي
EMIRATES SCHOOLS ESTABLISHMENT



AL SALAMAT SCHOOL
CYCLE 2 - AL AIN

AL SALAMAT SCHOOL (TRIMESTE³) (2022-2023)

GRADE (8) SCIENCE (ANSWERS)

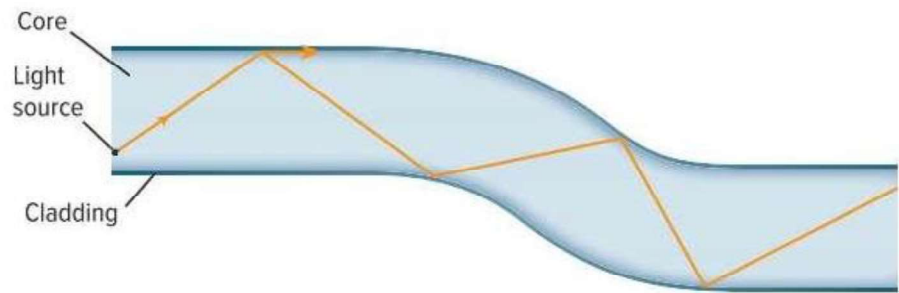
MR. ISSA WASWAS

Module 1

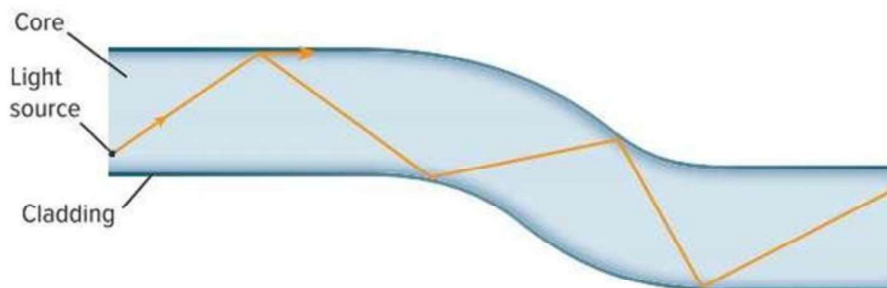
Information Technologies

QUIZ (answers)

Examine the model of how light travels through a fiber optic cable.

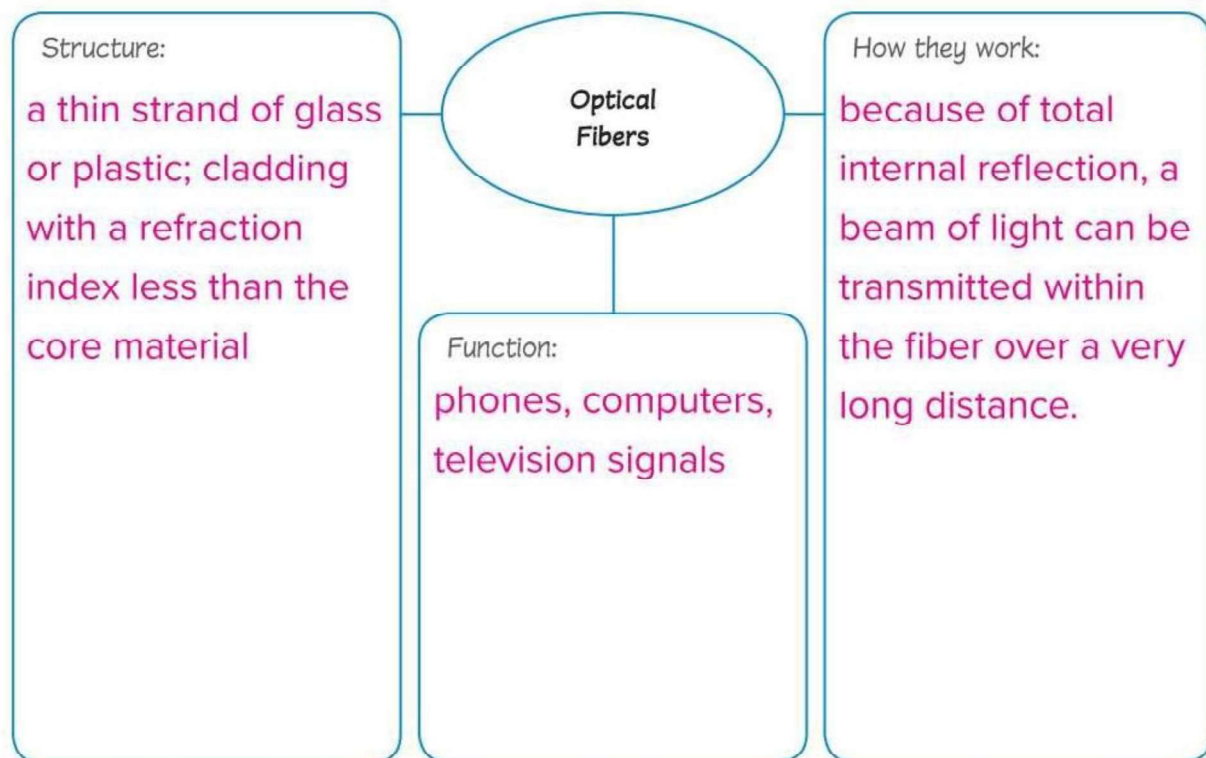


2. A light ray stays inside an optical fiber due to wave behaviors. Which behavior is not associated with optical fibers?
- A Because of the wave behavior of reflection.
 - B Because of the wave behavior of refraction.
 - ✓ C Because of the wave behavior of diffraction.
 - D Because of the wave behavior of transmission.



The wave shown in the graph above is affected by signal noise. How does this affect the quality of the wave?

- A It increases the quality.
- ✓ B It decreases the quality.
- C The quality is not affected by noise.
- D It only affects the wave if you are far away from the source.



THREE-DIMENSIONAL THINKING

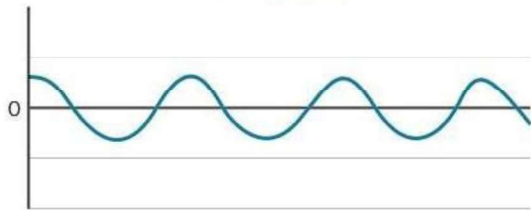
WRITING Connection Lighthouses were designed for the **function** of warning boats of dangerous areas near shorelines. **Construct an argument** for why lighthouses use light instead of sound for sending signals to boats. Cite textual evidence to support your argument.

Arguments should be well written with a claim, supporting evidence, and reasoning. Evidence could include that light is an electromagnetic wave and it travels faster than sound. It travels farther without getting disrupted than sound.

Kris works with a rover that sends her data about the surface of a distant planet. The digital information is translated by her computer and provides data that she can use for her studies.

2. Which model best describes the signal that Kris' computer receives?

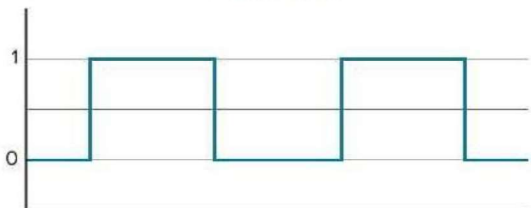
A Analog Signal



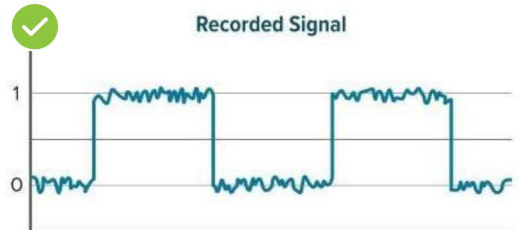
C Noise



B Digital Signal



D Recorded Signal



Electronic signals can travel very long distances in _____ **optical** _____ fibers, due to total internal reflection.

What do all signals that are used to communicate have in common?

- ☐ **A)** They all involve light waves.
- ☒ **B)** They all send information.
- ☐ **C)** They all use printed words.
- ☐ **D)** They all use a series of sounds.

Identify three devices that were developed to send or receive signals carried by electromagnetic waves.

- 1- computers**
- 2- sensors**
- 3- satellites**

What is a *disadvantage* of using radio waves to transmit information?

- ☐ **A)** They do not permanently move matter.
- ☐ **B)** They can travel over long distances.
- ☐ **C)** They can be varied to hold information.
- ☒ **D)** They lose energy as they travel through mediums.

How does noise affect a signal?

- ☒ **A)** It causes the signal to deteriorate.
- ☐ **B)** It amplifies the signal.
- ☐ **C)** It allows the signal to travel further.
- ☐ **D)** It changes the signal as it moves from one medium to another.

Which correctly orders the steps of communication using signals?

- ☒ **A)** encode, transmit, decode
- ☐ **B)** transmit, encode, decode
- ☐ **C)** decode, transmit, encode
- ☐ **D)** transmit, decode, encode

All of the following are types of electromagnetic waves that can be used to transmit signals **except** _____.

- ☒ **A)** sound waves
- ☐ **B)** light waves
- ☐ **C)** radio waves
- ☐ **D)** microwaves

Computers use a series of Binary numbers to encode information.

Which is the best model of an analog signal?

- ☒ **A)** a smooth wave
- ☐ **B)** a light switch going on and off
- ☐ **C)** a series of 1's and 0's
- ☐ **D)** a series of pulses

Which best compares the reliability of analog signals and digital signals?

- ☐ **A)** Only analog signals are reliable.
- ☐ **B)** Analog signals are more reliable than digital signals.
- ☒ **C)** Digital signals are more reliable than analog signals.
- ☐ **D)** Both types of signals are equally reliable.

Which best describes binary numbers?

- ☐ **A)** a continuously changing wave
- ☒ **B)** a set of two discrete values
- ☐ **C)** a large array of values
- ☐ **D)** a set of four or five numbers

For which type(s) of signals does noise alter the *original* information?

- ☒ **A) analog only**
- ☐ **B) digital only**
- ☐ **C) both analog and digital**
- ☐ **D) neither analog nor digital**

Both analog and digital signals are affected by noise.
In Analog signals the noise altered the original information.
In Digital signals the noise does not alter the original information.
So the correct answer is A not C.

Which of these uses digital signals to store, send, or receive information?

- ☐ **A) a film camera**
- ☒ **B) a CD player**
- ☐ **C) a tape recorder**
- ☐ **D) a vinyl record**

Computers use **Digital** signals to store, send, and receive information.

Light waves stay inside an optical fiber as they are transmitted because the _____.

- ☐ **A)** light waves curve to follow the path of the fiber
- ☐ **B)** fiber is insulated to prevent loss of thermal energy
- ☒ **C)** fiber reflects the light back into the core
- ☐ **D)** fiber is perfectly straight

Which is an example of a signal being encoded?

- ☐ **A)** reading braille
- ☒ **B)** writing a word in Morse code
- ☐ **C)** hearing sound from a radio
- ☐ **D)** receiving an email

Which does NOT help explain why digital signals are more reliable than analog signals?

- ☐ **A)** Noise is more easily filtered from digital signals.
- ☒ **B)** Digital signals are smooth and continuous.
- ☐ **C)** Digital signals consist of two values only.
- ☐ **D)** Analog signals deteriorate due to noise.

Computers use digital information that is encoded as Binary numbers.

Digital signals _____.

- ☐ A) can only be stored on computers
- ☒ B) consist of only two values
- ☐ C) cannot be transmitted by light waves
- ☐ D) are what is stored by camera film

Which best explains why the receiver of a signal must understand the code or language being used?

- ☒ A) This allows the signal to be decoded.
- ☐ B) This allows the signal to be transmitted.
- ☐ C) This allows the signal to be converted to binary.
- ☐ D) This allows the signal to be encoded.

Which is NOT a property of electromagnetic waves?

- ☐ A) They lose energy as they move through mediums.
- ☐ B) They can be varied to hold information.
- ☐ C) They transfer energy but not matter.
- ☒ D) They consist of a series of pulses.

A square wave with values 0 and 1 is an example of a(n) Digital signal.

Describe three characteristics of electromagnetic waves that make them useful for transmitting signals.

- 1- Can travel very fast and for long distance.
- 2- Can be modified or modulated.
- 3- Varied in many ways.
- 4- Can travel through vacuum (empty space)
- 5- Do not permanently move matter.

Figure 1

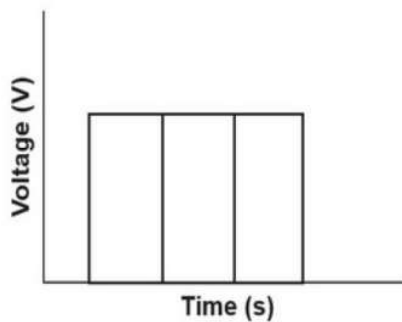


Figure 2

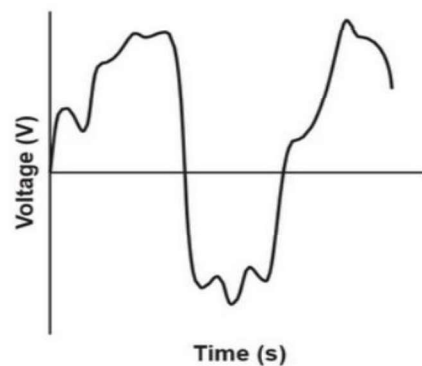
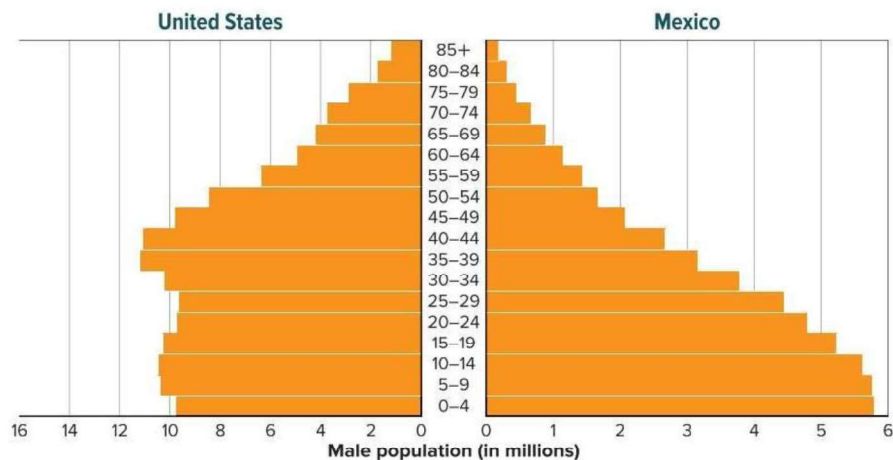


Figure 1 : Digital signals because its two discrete values (on/off) (1/0).
Figure 2 : Analog signals because its continuous and smooth.

Module 2

Earth and Human Activity

QUIZ (answers)



2. What can be concluded from the data displayed on the age structure diagrams above?
- ☐ A The male population of Mexico is growing at a slower rate than the United States because fewer children are being born in Mexico.
 - ☒ B The male population of Mexico is growing at a faster rate than the United States because the number of children in Mexico exceeds the other age groups.
 - ☐ C The male population of Mexico is growing at a slower rate than the United States because there are fewer elderly males.
 - ☐ D The male population of Mexico is growing at a faster rate than the United States because there is a greater number of elderly males.

Biologists report that habitat destruction, overexploitation, and pollution are eliminating species at a rate comparable to the great extinction that marked the end of the age of dinosaurs. The UN Environment Programme reports that, over the past century, more than 800 species have disappeared and at least 10,000 species are now considered threatened. This includes about half of all primates and around 10 percent of all plant species. At least half of the forests existing before the introduction of agriculture have been cleared, and much of the diverse “old growth” on which many species depend for habitat is rapidly being cut and replaced by ecologically impoverished forest plantations.

2. Which statement is a logical conclusion that can be drawn from information in the text?

- ☐ A Clean technology has helped eliminate pollution and protect endangered species.
- ☐ B Natural resources are limited, and the biosphere has limited capacity to provide our food and water.
- ☒ C Consuming forest resources interferes with the survival of other species.
- ☐ D “Old-growth” forests supply food, energy, and other resources humans depend on.

3. **MATH Connection** Only a small percentage of Americans owned cars before the 1940s. By 2017, there were nearly 250 million vehicles for 323 million people, greatly increasing the need for roadways. In 1960, the United States had about 16,000 km of interstate highways. Today, the interstate highway system includes 77,000 km of paved roadways. What percent increase does this represent?

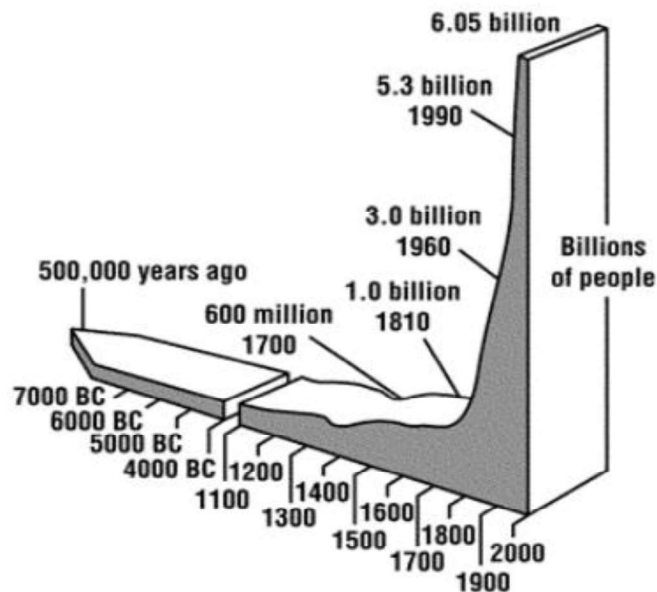
- ☒ A 381 percent
- ☐ B 792 percent
- ☐ C 38 percent
- ☐ D 79 percent

Population explosion refers to the _____.

- ☐ A) estimated world population in 2025
- ☐ B) number of people who live in poverty
- ☐ C) world population in 1810
- ☒ D) increased rate at which the population is growing

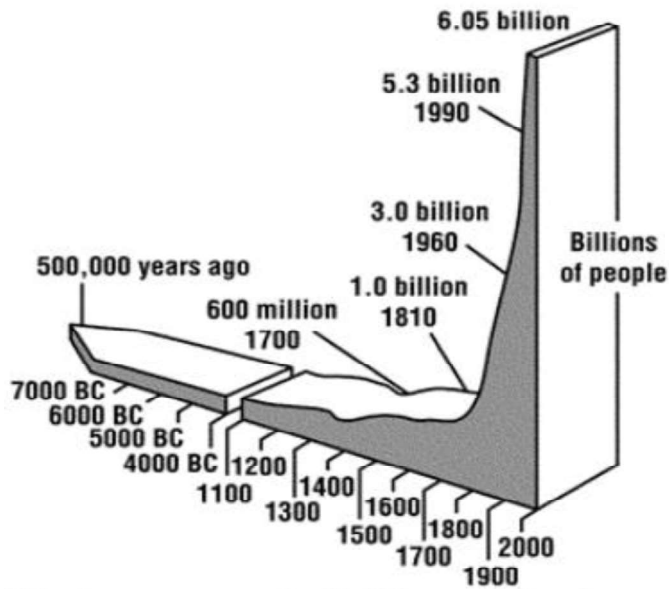
Human activities have which type of impact on the environment?

- ☐ A) positive
- ☐ B) negative
- ☐ C) neither a nor b
- ☒ D) both a and b



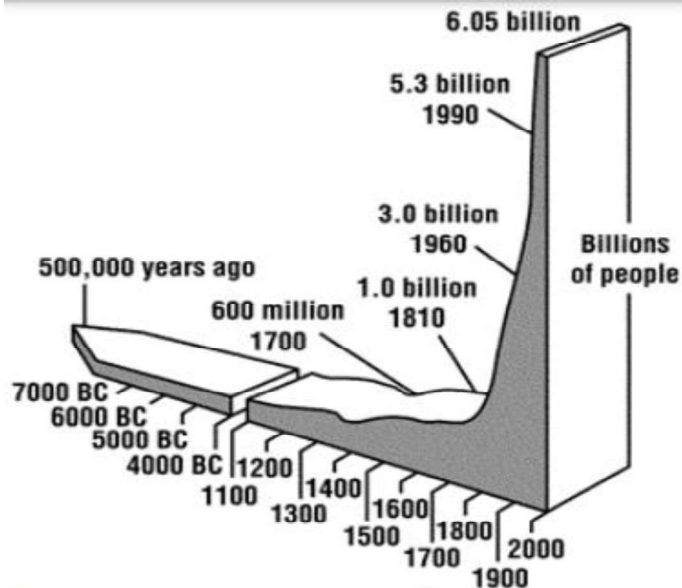
The global population in 2000 was approximately _____.

- ☒ A) 6.05 billion
- ☐ B) 60 billion
- ☐ C) 3 billion
- ☐ D) 1 billion



It took _____ years for Earth's population to grow from 1 billion to 3 billion.

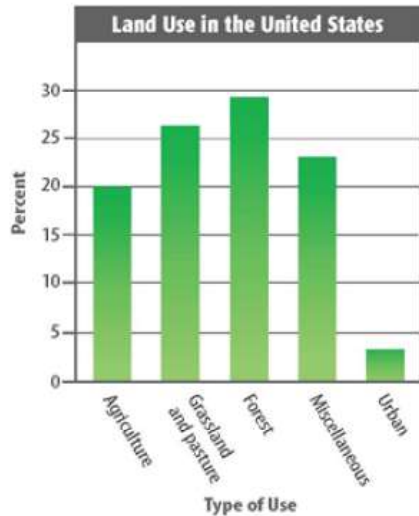
- ☐ A) 10
- ☐ B) 15
- ☐ C) 100
- ☒ D) 150



There were _____ people in 1960.

- ☐ A) 5.3 billion
- ☒ B) 3.0 billion
- ☐ C) 1.0 billion
- ☐ D) 600 million

According to the graph, in the United States how much land is used by cities compared to other land uses?



- ☐ A) Most land is used by cities.
- ☐ B) Cities use half as much land as agriculture.
- ☐ C) Cities use one third as much of the land as forests.
- ☒ D) Cities use very little land compared to any other category.

Reduced vegetation on Earth results in _____.

- ☒ A) more carbon dioxide in the atmosphere
- ☐ B) increased habitats
- ☐ C) less room for humans
- ☐ D) more oxygen in the atmosphere

Of the following, which helps conserve natural resources?

- ☐ A) using a cloth shopping bag instead of a paper bag
- ☐ B) riding your bike on short trips around town
- ☐ C) planting trees in your front yard
- ☒ D) all of the above

Which atmospheric gas contributes to climate change?

- ☒ **A)** carbon dioxide
- ☐ **B)** oxygen
- ☐ **C)** ozone
- ☐ **D)** nitrogen

One cause of _____ may be deforestation.

- ☐ **A)** thunderstorms
- ☒ **B)** climate change
- ☐ **C)** clouds
- ☐ **D)** precipitation

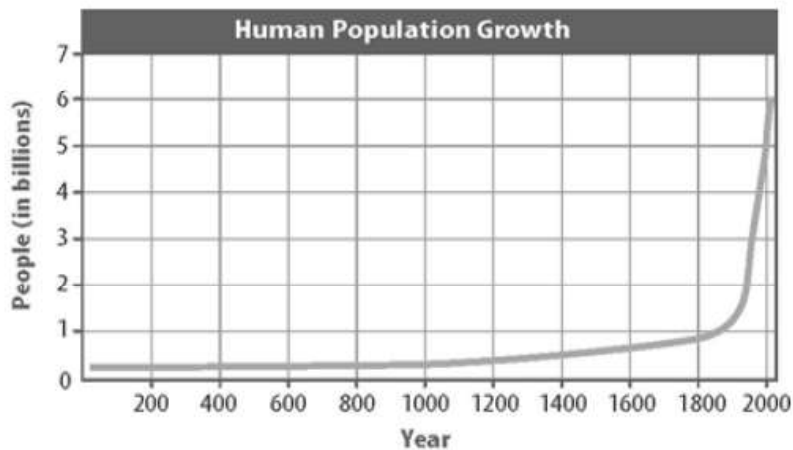
What effect does recycling have on land resources?

- ☒ **A)** Recycling conserves land resources.
- ☐ **B)** Recycling uses land resources more quickly.
- ☐ **C)** Recycling has no effect on land resources.
- ☐ **D)** Recycling only affects water resources.

A simple action like taking a shower _____.

- ☐ **A)** has little impact on natural resources
- ☐ **B)** uses only one natural resource
- ☒ **C)** makes use of several types of natural resources
- ☐ **D)** all of the above

Which of the following does not help explain the sudden rise in population that occurs from the late 1700s and beyond?



- ☐ A) the beginning of the Industrial Revolution
- ☐ B) scientific advances
- ☒ C) the settling of the western part of the United States
- ☐ D) medical advances

What is one way people can help protect the environment?

- ☒ A) recycling
- ☐ B) cutting down trees
- ☐ C) mining
- ☐ D) littering

Deforestation can lead to _____.

- ☐ A) loss of animal habitats
- ☐ B) soil erosion
- ☐ C) increases in Earth's average surface temperature
- ☒ D) all of the above

During which process do trees remove carbon dioxide from the air?

- ☐ **A)** deforestation
- ☐ **B)** respiration
- ☒ **C)** photosynthesis
- ☐ **D)** both a and b

Which of the following is a way a 13 year old in America can help control greenhouse gasses?

- ☐ **A)** plant trees
- ☐ **B)** recycle aluminum cans
- ☐ **C)** turn off electronics that are not in use
- ☒ **D)** all of the above

When do populations increase?

- ☐ **A)** when birth rates are smaller than death rates
- ☐ **B)** when death rates are higher than birth rates
- ☒ **C)** when birth rates are higher than death rates
- ☐ **D)** when birth rates and death rates are equal

Carrying capacity refers to the largest _____ an environment can support.

- ☐ **A)** ecosystem
- ☐ **B)** organisms
- ☒ **C)** population
- ☐ **D)** habitat

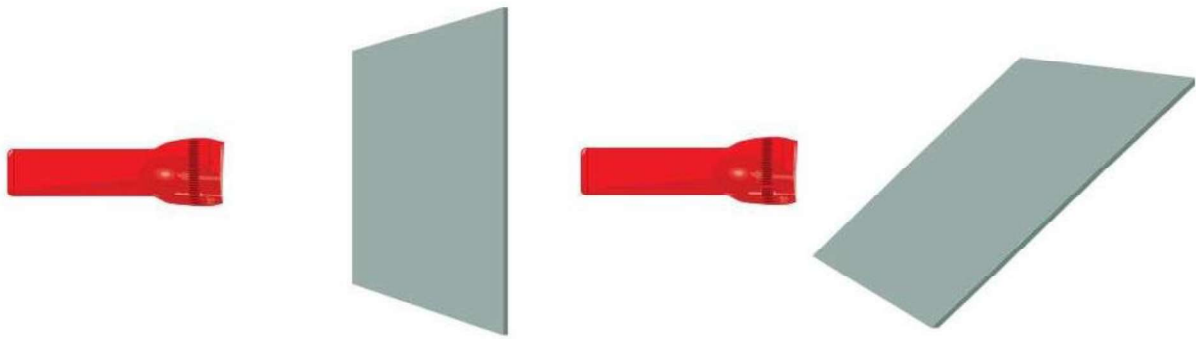
Module 3

The Sun-Earth-Moon System

QUIZ (answers)

Which best explains why Earth is colder at the poles than at the equator?

- A** Earth is farther from the Sun at the poles than at the equator.
- B** Earth's orbit is not a perfect circle.
- C** Earth's rotation axis is tilted.
- ☒ Earth's surface is more tilted at the poles than at the equator.



3. Predict the pattern of the light that will appear on each sheet of paper when the flashlight is turned on.

- ✓ The pattern on the vertical paper will be a circle, the pattern that will appear on the tilted paper will be elongated and spread out.
- B The pattern on the papers will change because the light will fluctuate.
- C The pattern that will appear on both pieces of paper is the same—a circle of light.
- D The pattern that will appear on both pieces of paper is the same—elongated and spread out.

	 new moon Phase		 waning crescent Phase
	 third quarter Phase		 full moon Phase
	 waxing crescent Phase		 waxing gibbous Phase
	 waning gibbous Phase		 first quarter Phase

2. A new moon occurs once every 29.5 days. Why must the Sun, Earth, and the Moon be aligned in order for the new moon to occur?

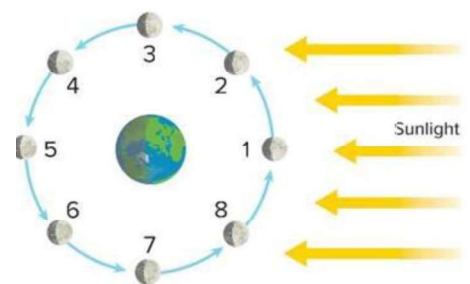
- A No sunlight is reflected off Earth at this point.
- ☒ B Sunlight directed toward Earth is blocked by the Moon.
- C The Moon does not orbit in the same plane as Earth.
- D The Moon is not directing any light toward Earth at this point.

3. Predict the locations when the Moon is in a waxing phase.

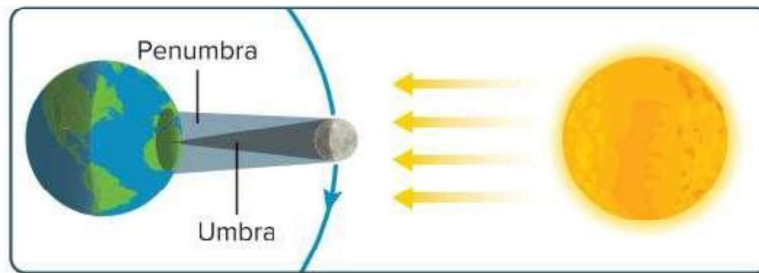
- A 1, 5
- ☒ B 2, 3, 4
- C 7, 8
- D 3, 7

4. Predict which location is the phase seen from Earth at the end of the second week of the lunar cycle.

- A 1
- B 3
- ☒ C 5
- D 7

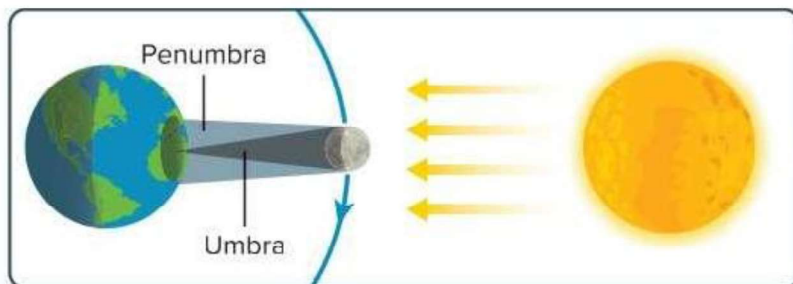


Use the figure to answer questions 2 and 3.



2. What is occurring in this figure?

- A** lunar eclipse
- B** lunar and solar eclipse
- C** partial lunar eclipse
- ☒ **D** solar eclipse



3. Why would someone in North America not be able to view this eclipse?

- A** Because this is a lunar eclipse and Earth casts a very small shadow.
- B** Because this is a lunar eclipse and North America is experiencing day.
- ☒ **C** Because this is a solar eclipse and North America is experiencing night.
- D** Because this is a solar eclipse and the Moon casts a very small shadow.

4. Where do you have to be located to be able to see a total eclipse?

A anywhere on the continent where the eclipse is occurring

B within the penumbra

C within the penumbra and umbra

☒ within the umbra

The yearly orbit of Earth around the Sun is called its _____.

☐ **A)** rotation

☐ **B)** ellipse

☒ **C)** revolution

☐ **D)** tilt

Summer occurs on the hemisphere of Earth that is _____.

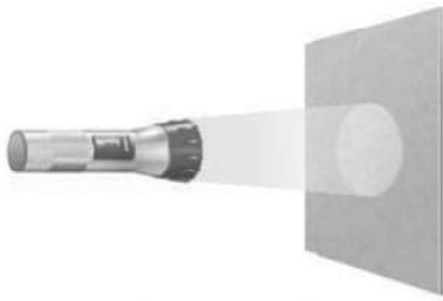
☐ **A)** turned away from the Sun

☒ **B)** tilted toward the Sun

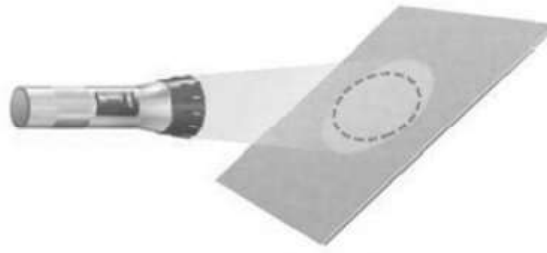
☐ **C)** tilted away from the Sun

☐ **D)** turned toward the Sun

A light source is shining on a vertical surface or a slanted surface as shown below. Which statement is correct?



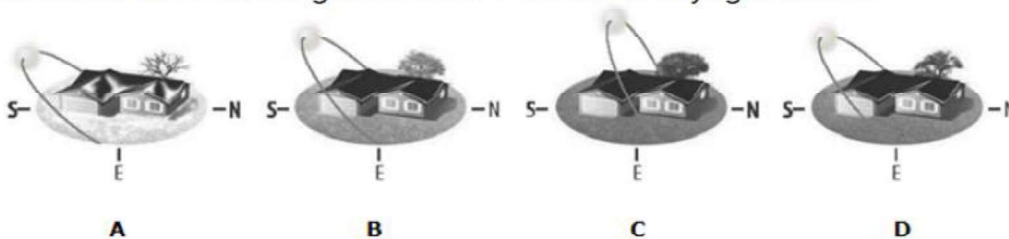
Surface is vertical.



Surface is tilted.

- ☒ A) The light energy that hits the vertical surface is stronger because it is concentrated on a smaller area.
- ☐ B) The light energy that hits the vertical surface is weaker because it is concentrated on a smaller area.
- ☐ C) The light energy that hits the slanted surface is stronger because it is concentrated on a larger area.
- ☐ D) The light energy that hits the slanted surface is stronger because it is concentrated on a smaller area.

Which of the following would have the most daylight hours?



- ☐ A) A
- ☐ B) B
- ☒ C) C
- ☐ D) D

The line on which an object rotates is defined as _____

- ☐ A) revolution axis
- ☒ B) rotation axis
- ☐ C) tilt axis
- ☐ D) spin axis

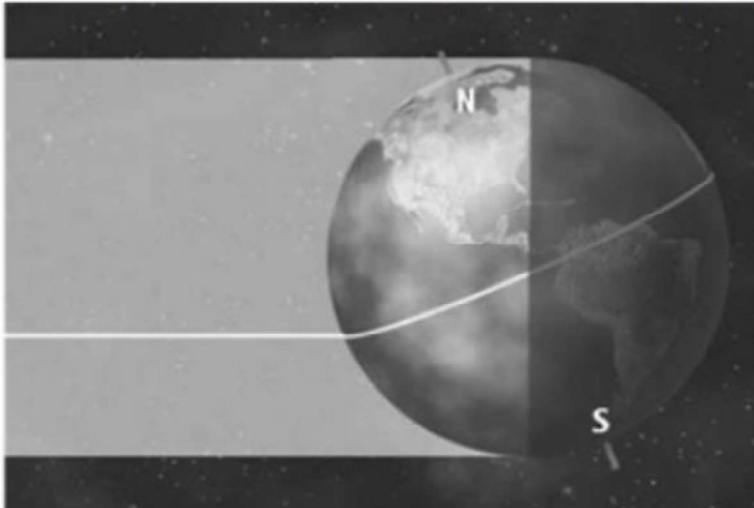
Not only is the summer solstice the longest day of the year, it is also the day on which _____.

- ☐ A) the Sun is lowest in the sky
- ☐ B) sunset comes earliest
- ☒ C) the Sun appears to be highest in the sky
- ☐ D) sunrise comes latest

As shown below, sunlight is more spread out as you move away from the **Equator**.

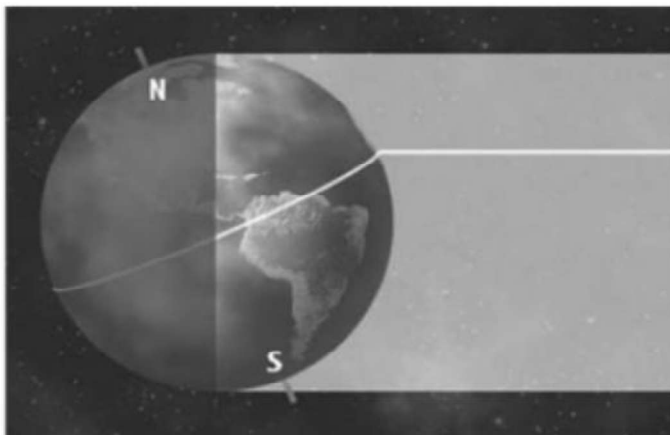


What season is shown for the northern hemisphere? Explain your answer.



It is summer. The northern hemisphere is tilted toward the Sun and therefore receives more solar energy from the sunlight.

What season is shown for the northern hemisphere? Explain your answer.



It is winter. The northern hemisphere is tilted away from the Sun and therefore receives less solar energy from the sunlight.

The phase of the Moon that comes right before the new moon is the _____.

- ☐ A) full moon
- ☐ B) first quarter
- ☐ C) second quarter
- ☒ D) waning crescent

During _____ phases, more of the Moon is visible each night.

- ☒ A) waxing
- ☐ B) waning
- ☐ C) new
- ☐ D) full

) Which phase of the moon is shown in this picture of the sky at midnight?



- ☐ A) new moon
- ☒ B) first quarter
- ☐ C) full moon
- ☐ D) third quarter

Which phase of the moon is shown in this picture of the sky at midnight?



- ☐ A) new moon
- ☐ B) first quarter
- ☒ C) full moon
- ☐ D) third quarter

Which phase of the moon is shown in this picture of the sky at midnight?



- ☐ A) new moon
- ☐ B) first quarter
- ☐ C) full moon
- ☒ D) third quarter

During which phase is just the western half of the Moon lit?

- ☒ **A) first quarter**
- ☐ **B) full moon**
- ☐ **C) third quarter**
- ☐ **D) new moon**

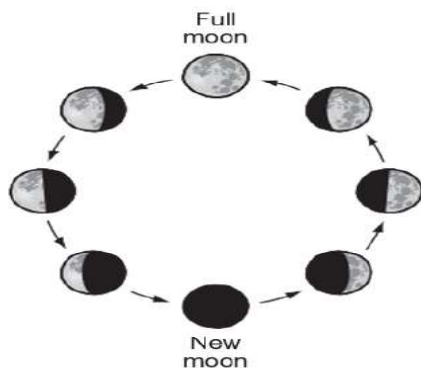
When the shadow of the Moon appears on Earth's surface a _____ is occurring.

- ☒ **A) solar eclipse**
- ☐ **B) new moon**
- ☐ **C) lunar eclipse**
- ☐ **D) astral eclipse**

The longest a total solar eclipse lasts is about how long?

- ☐ **A) 1 minute**
- ☒ **B) 7 minutes**
- ☐ **C) 30 minutes**
- ☐ **D) an hour**

Emma observed the Moon on eight nights during a lunar cycle. A full moon was visible on the first night. The diagram shows Emma's observations.



- ☐ **A)**
- ☒ **B)**
- ☐ **C)**
- ☐ **D)**

Which phase of the Moon did Emma **most likely** observe on the eleventh night of this lunar cycle?

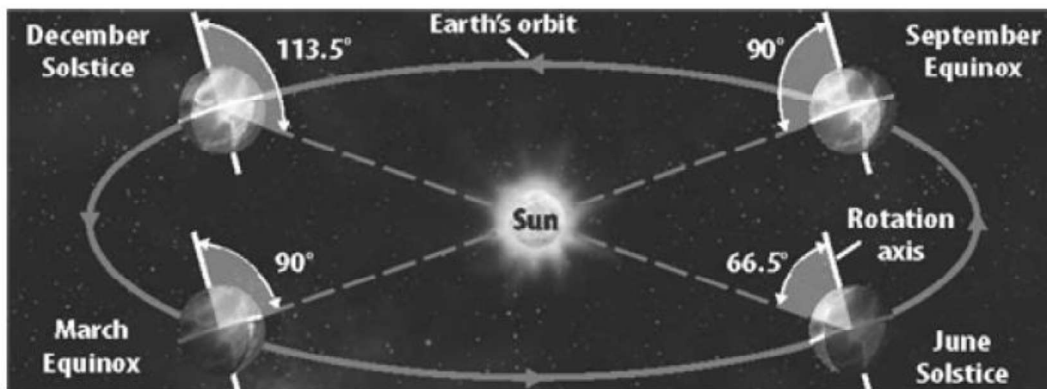
The Sun's rays strike Earth at their northernmost and southernmost positions during ____.

- ☒ **A)** winter and summer solstices
- ☐ **B)** spring and fall equinoxes
- ☐ **C)** lunar eclipses
- ☐ **D)** solar eclipses

When the north end of Earth's rotation axis is pointing toward the Sun, which statement is true?

- ☐ **A)** The southern hemisphere receives more energy from the Sun.
- ☐ **B)** Temperatures decrease in the northern hemisphere.
- ☒ **C)** The northern hemisphere receives more energy from the Sun.
- ☐ **D)** Temperatures increase in the southern hemisphere.

Which statement is true about both the September equinox and the March equinox shown below?



- ☒ **A)** There are about 12 hours of daylight and 12 hours of darkness everywhere on Earth.
- ☐ **B)** Spring is starting for the southern hemisphere.
- ☐ **C)** Spring is starting for the northern hemisphere.
- ☐ **D)** They are the longest days of the year.

A *solstice* is a day when _____.

- ☐ A) Earth's rotation axis is most toward the Sun.
- ☐ B) Earth's rotation axis is most away from the Sun.
- ☐ C) Earth's rotation axis is neither leaning toward or away from the Sun.
- ☒ D) Both a and b are correct.

The seasons are caused by _____.

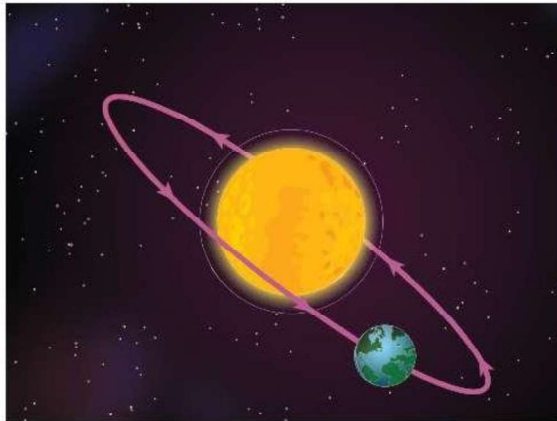
- ☒ A) the tilt of Earth's axis as Earth orbits the Sun
- ☐ B) Earth's distance from the Sun
- ☐ C) the shape of Earth's orbit
- ☐ D) the tides of the ocean

Module 4

Exploring the Universe

QUIZ (answers)

It was once thought that Earth was the center of the universe. Eventually, it was proven that the planets orbit around the Sun. The illustration shows the path of Earth's orbit around the Sun.



2. Describe the path of Earth if the Sun's gravity were to suddenly stop.
- A Earth would continue to move within its orbit.
 - B Earth would move in a straight line towards the Sun.
 - ☒ C Earth would move in a straight line instead of a curved line.
 - D Earth would stop moving and become suspended in one spot.

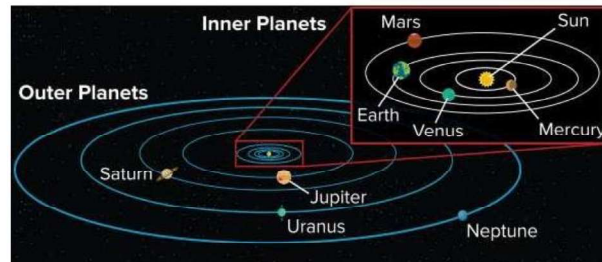
Halley's Comet orbits the Sun and can be seen from Earth about every 76 years. However, before the work of Sir Isaac Newton and Edmond Halley, comets were thought to pass in a straight line through the solar system. In 1705, Edmond Halley used Newton's laws to determine the gravitational effects of Jupiter and Saturn on a comet that he observed in 1682. Using this information and historical records, he determined that comets seen in 1531 and 1607 were the same comet. Halley correctly calculated the orbit of the comet and predicted its return in 1758.

3. Newton's laws state that all objects exert gravitational force and that objects with more mass exert more force. Which system of objects has the greatest effect on the orbit of Halley's comet?
- A Earth, the Sun, and the Moon
 - ☒ B the Sun, Jupiter, and Saturn
 - C asteroids, meteoroids, and dwarf planets
 - D Earth, the Sun, and Saturn



Three-Dimensional Thinking

NASA has been sending exploration missions to Mars for almost 50 years. The length of time it has taken the different spacecraft to reach Mars ranges from 150 days to 360 days. In order to make it possible for humans to travel to Mars, the travel time must be reduced.



2. Assume the different spacecraft were using the same amount of fuel at the same rate. Why are there such long differences in travel time?
- A The distance of Mars from the Sun changes.
 - ☒ B The distance from Earth to Mars changes.
 - C The position of Earth from the Sun changes.
 - D The shape of the planet's orbit changes.

The chart below shows the surface temperatures of the outer planets.

Planet	Surface Temperature
Neptune	-214°C
Uranus	-216°C
Jupiter	-148°C
Saturn	-178°C

3. What can you conclude about the outer planets based on the data table?
- A If Neptune were closer to the Sun, it would be cooler.
 - B Saturn is closer to the Sun than any of the other outer planets.
 - ☒ C The coldest planet is Uranus.
 - D The surface temperature of Earth is between that of Neptune and Jupiter.

The solar system formed 4.6 billion years ago when a disk of dust and gas was pulled together by gravity.

Spiral, elliptical, and irregular are three types of galaxies in the universe.

Which describes a characteristic that is shared by different galaxies in the universe?

- ☐ A) They all are about the same distance from the Milky Way.
- ☐ B) They all have similar planets and stars.
- ☒ C) They all formed because of gravity.
- ☐ D) They all have the same shape.

Which correctly describes the gravity between objects in the solar system?

- ☐ A) Objects far from the Sun are not large enough to pull on any other objects in the solar system.
- ☐ B) Objects in orbit are in motion, and are not affected by gravity.
- ☐ C) Objects far apart pull on each other more strongly than objects close together.
- ☒ D) Objects with a large mass pull with more force than objects with a small mass.

Which statement about the Milky Way is correct?

- ☐ A) The Milky Way is unique in that it contains planets and other celestial bodies.
- ☐ B) The Milky Way does not belong to a cluster of galaxies.
- ☒ C) The Milky Way is one of hundreds of billions of galaxies.
- ☐ D) The Milky Way is so big that it is not affected by gravity.

Which is NOT part of our solar system?

- ☐ **A)** the moons around Jupiter
- ☐ **B)** asteroids and meteoroids
- ☐ **C)** comets
- ☒ **D)** stars that are not the Sun

Naa is reading an article about objects in the solar system. She finds out that Ganymede, one of Jupiter's moons, is bigger than the planet Mercury. Which statement explains why Ganymede is not classified as a planet?

- ☒ **A)** It orbits Jupiter and not the Sun.
- ☐ **B)** It is not as close to the Sun as Mercury.
- ☐ **C)** It is not shaped like the rest of the planets.
- ☐ **D)** It is held in its orbit by gravity.

What is the basic shape of every planet's orbit?

- ☐ **A)** circle
- ☒ **B)** ellipse
- ☐ **C)** square
- ☐ **D)** triangle

Which does NOT have an effect on how strongly the Sun pulls on an object in space?

- ☐ **A)** the mass of the object
- ☐ **B)** how far the object is away from the Sun
- ☒ **C)** the fact that the Sun is made of a mixture of gases
- ☐ **D)** the mass of the Sun

Inner planets are mostly made of rock, while outer ones are made of gas.

Planet	Distance from the Sun (AU)	Type	Mass (kg)	Diameter (km)	Number of Known Moons
Mercury	0.39	Rocky	0.33×10^{24}	4,878	0
Venus	0.72	Rocky	0.49×10^{24}	12,104	0
Earth	1.00	Rocky	5.97×10^{24}	12,756	1
Mars	1.52	Rocky	0.642×10^{24}	6,794	2
Jupiter	5.20	Gaseous	1898×10^{24}	142,984	67
Saturn	9.54	Gaseous	568×10^{24}	120,536	62

Two of the inner planets are _____.

- ☐ A) Venus and Saturn
- ☒ B) Mars and Venus
- ☐ C) Earth and Pluto
- ☐ D) Mercury and Jupiter

The order of the inner planets outward from the Sun is _____.

- ☐ A) Mercury, Earth, Venus, and Mars
- ☒ B) Mercury, Venus, Earth, and Mars
- ☐ C) Mars, Venus, Earth, and Mercury
- ☐ D) Earth, Venus, Mars, and Mercury

Which does NOT describe our Sun?

- ☐ **A)** it is part of the Milky Way galaxy
- ☒ **B)** it is the center of the universe
- ☐ **C)** it holds 99% of the mass in the solar system
- ☐ **D)** it is one of billions of stars

A galaxy that has a shape similar to a football is a(n) _____ galaxy.

- ☐ **A)** normal spiral
- ☐ **B)** barred spiral
- ☒ **C)** elliptical
- ☐ **D)** irregular

Which of the following is defined as a huge collection of gas, dust, and stars held together by gravity?

- ☐ **A)** nebula
- ☐ **B)** solar system
- ☒ **C)** galaxy
- ☐ **D)** universe

Which of the following data can help someone to infer the size of a planet?

- ☒ **A)** how many moons it can capture due to its pull of gravity
- ☐ **B)** how far it is from the Sun in km
- ☐ **C)** its surface temperature in degrees
- ☐ **D)** its surface geography



تمنياتي لكم بالتوفيق
والنجاح بإذن الله

THE END
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WASWAS