

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) The primary source of energy for hydrothermal vent communities is _____
A) reduction of carbon dioxide in the vent water.
B) oxidation of petroleum compounds in the vent water.
C) the heat of the water emerging from the vents.
D) oxidation of hydrogen sulfide in the vent water.
- 2) All of Earth that is inhabited by life is called the _____
A) biosphere. B) lithosphere. C) hydrosphere. D) stratosphere.
- 3) While on a walk through a forest, you notice birds in trees, earthworms in the soil, and fungi on plant litter on the forest floor. Based on your observations, you conclude that each of these organisms occupies a different _____
A) habitat. B) biosphere. C) ecosystem. D) biome.
- 4) The level of ecologic organization that incorporates abiotic factors is the _____
A) ecosystem. B) community. C) population. D) species.
- 5) Which of the following could be a topic for a community-level study of a hydrothermal vent ecosystem?
A) the interactions between Yeti crabs and other species near hydrothermal vents
B) the relationships between crabs at the vent and other areas of the ocean
C) the composition of the water emitted by hydrothermal vents
D) the evolution of a certain species of bacteria in response to the changing composition of the water emitted by the hydrothermal vents
- 6) Rachel Carson's book, *Silent Spring*, deals with the _____
A) destruction of polar habitats caused by global warming.
B) environmental effects of pesticides.
C) fate of tropical rain forests.
D) effects of lynx predation on snow hare populations.
- 7) The immediate results of the widespread use of pesticides and fertilizers included _____, but long-term results included _____.
A) terrible declines in agricultural productivity . . . worldwide distribution of DDT
B) the increased spread of malaria . . . delayed resistance to pesticides
C) global declines in undesirable pests, such as mice, rats, crows, and sharks . . . increases in these pests
D) dramatic increases in crop yields . . . the evolution of pest resistance
- 8) In many dense forests, plants living near the ground level engage in intense competition for _____
A) water. B) oxygen. C) carbon dioxide. D) sunlight.

- 9) Which of the following environmental factors usually has the greatest direct effect on an organism's rate of water loss by evaporation? 9) _____
- A) wind
B) soil type
C) barometric pressure
D) fires, hurricanes, and tornadoes
- 10) What is the primary reason that a hot spring will kill a fish placed in it, but encourage the growth of certain bacteria? 10) _____
- A) Bacterial growth at high temperatures is so rapid that it deoxygenates the water and kills the fish.
B) At hot spring temperatures, the metabolic activity of the fish's cells is so rapid that it runs out of food reserves and dies; the bacteria feed on the dead fish.
C) The high temperatures denature most of the fish's enzymes, but the specialized bacteria have enzymes adapted to these temperatures.
D) Fish cannot feed directly on bacteria, but the bacteria can feed on dead fish.
- 11) The pronghorn antelope of the United States and the saiga antelope of the central Asian steppes live in similar habitats and have similar adaptations. Which of the following features would you be surprised to find in a saiga antelope? 11) _____
- A) teeth adapted to grinding tough forage
B) a digestive tract that separates nutrients from cellulose and rapidly excretes cellulose
C) camouflaging coloration
D) a warmly insulating winter coat
- 12) The reason that the pronghorn antelope is not found outside North America is most likely that 12) _____
- A) it has never dispersed beyond this region.
B) there are too many pronghorn predators outside North America.
C) its nutritional requirements cannot be met outside this region.
D) its temperature requirements are stringent and not met outside North America.
- 13) The adaptations of pronghorns 13) _____
- A) demonstrate that meeting the demands of local environmental conditions helps organisms extend their ranges to other types of environments.
B) include a reflective coat, an ability to find small pools of water, and chemical defenses against most predators.
C) to open country could be a disadvantage in a densely forested environment.
D) to the open plains and shrub deserts of North America have helped them spread to nearly every continent.
- 14) In terms of global air circulation, the tropics are a region where air 14) _____
- A) rises and warms, creating an arid belt.
B) rises and cools, dropping rain.
C) rises and cools, creating an arid belt.
D) descends and warms, dropping rain.
- 15) The greatest annual input and least seasonal variation in solar radiation occurs in the 15) _____
- A) Southern Hemisphere.
B) polar regions.
C) tropics.
D) temperate zones.
- 16) If you travel from west to east through Ecuador, you will pass through tundra, taiga, temperate forest, and tropical forest. Which of the following climatic factors remains constant on such a trip? 16) _____
- A) day length
B) maximum temperature
C) average rainfall
D) soil type

- 17) Most of the world's deserts are located at latitudes where 17) _____
A) hot, dry air moving toward the equator rises.
B) cold, dry air moving toward the equator descends.
C) hot, dry air moving toward the poles rises.
D) cold, dry air moving toward the poles descends.
- 18) When people speak of the "rain shadow" of the California Coast Range, they are referring to the 18) _____
A) scarcity of rain on the eastern flank and adjacent lowlands compared to the western flank.
B) dark-colored chaparral vegetation that grows on the eastern flank.
C) forested condition of the eastern flank of the range compared to the western flank.
D) shadow cast by the mist and clouds that hover above the crest of the range.
- 19) A sperm whale in the middle of the Atlantic Ocean is in which oceanic zone? 19) _____
A) estuarine B) intertidal C) pelagic D) benthic
- 20) Except near hydrothermal vents, the communities of the oceanic aphotic zone get their energy 20) _____
mainly from
A) photosynthesis by local phytoplankton.
B) oxidation of sulfur by sulfur bacteria.
C) photosynthesis by local zooplankton.
D) organic matter sinking from the photic zone.
- 21) Which ocean zone describes the interface between ocean and land? 21) _____
A) pelagic B) upwelling C) abyssal D) intertidal
- 22) Fresh water and seawater mix in a(n) 22) _____
A) limnetic zone. B) littoral zone. C) estuary. D) benthic zone.
- 23) Under the conditions known as El Niño, the mineral nutrient content of the seawater off the coast 23) _____
of Peru declines to very low levels. What effect will this likely have on marine life in the area?
A) It will result in toxic red tides, which will reduce the populations of many species.
B) The lower the levels of minerals, the less polluted the water; hence, most populations will increase.
C) It will increase the productivity of phytoplankton and, therefore, the productivity of other organisms by allowing sunlight to penetrate deeper into the ocean.
D) It will reduce the abundance of phytoplankton and, consequently, the abundance of other organisms.
- 24) Usually, a river _____ at its source compared to farther downstream. 24) _____
A) is warmer B) has less phytoplankton
C) is wider D) flows more slowly
- 25) Why is the runoff from fertilized agricultural fields, even if free of pesticides, often harmful to the 25) _____
ecosystems of temperate lakes?
A) The runoff is acid, and acidification kills key lake organisms.
B) Fertilizer compounds are toxic to fish.
C) Runoff water pools at the lake's bottom, where the fertilizer compounds react with materials in the sediment to form toxic substances.
D) The runoff causes heavy growth of algae, which eventually die and decompose, causing oxygen depletion.

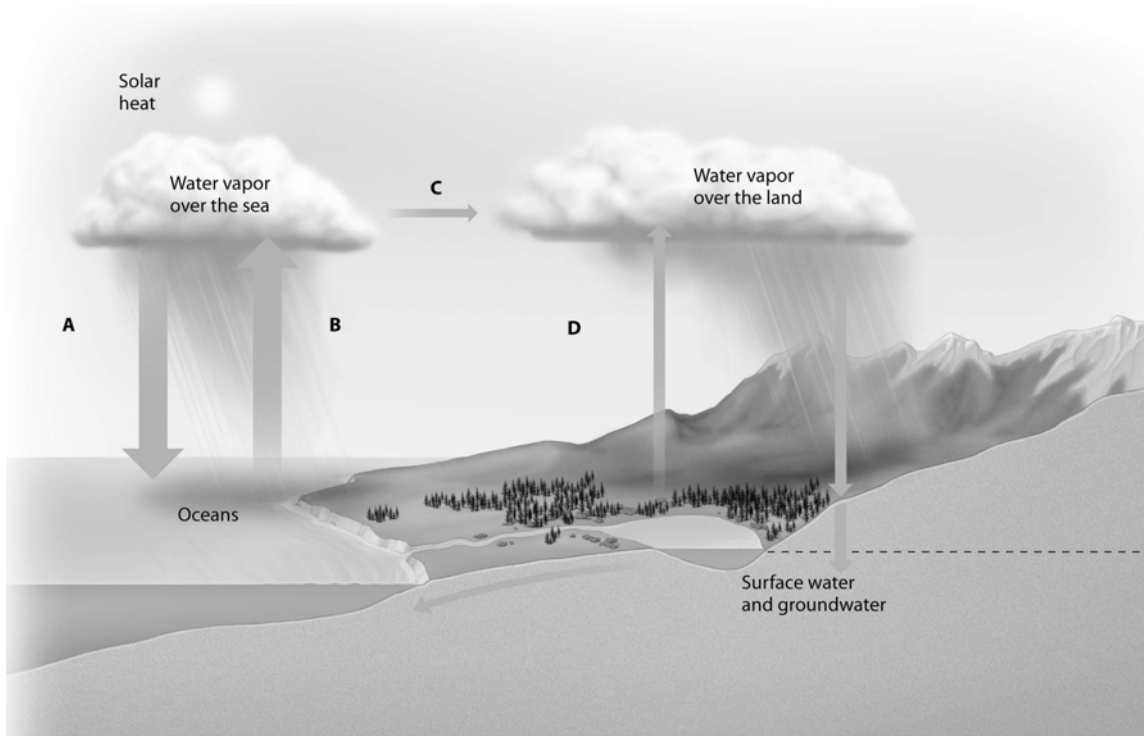
- 26) Species in widely separated biomes often appear to display similar characteristics because of 26) _____
A) mutations. B) coevolution.
C) evolutionary drift. D) convergent evolution.
- 27) Which of the following statements about biomes, the major terrestrial ecosystems covering the Earth, is *true*? 27) _____
A) Most natural biomes are unaffected by human activity.
B) Fire is very important in some biomes.
C) The major factors affecting the distribution of biomes are wind and sunlight.
D) Each of the ten major biomes is restricted to just one or two continents.
- 28) Which of the following statements about tropical forests is *true*? 28) _____
A) Once stripped, tropical rain forests regrow quickly, although with slightly less diversity.
B) The soils of tropical rain forests are typically rich in nutrients.
C) Tropical forests occur in equatorial regions with very long 16- to 20-hour days.
D) The forest structure consists of distinct layers that provide many different habitats.
- 29) The kind of vegetation in a tropical rain forest is generally determined by the amount of 29) _____
A) light. B) minerals in the soil.
C) rainfall. D) nitrogen in the soil.
- 30) The major reason for tropical deforestation is 30) _____
A) hurricane destruction of large regions.
B) governments clearing forests to build cities.
C) people clearing forests to open up land for agriculture.
D) natural succession as global warming occurs.
- 31) A photograph of a Victorian trophy room shows the heads of 15 species of hoofed mammals, all shot within a day's walk of a single hunting camp in Africa. This camp was probably located in 31) _____
A) desert. B) tropical rain forest.
C) savanna. D) chaparral.
- 32) The dominant herbivores in savannas are 32) _____
A) antelope. B) gophers. C) giraffes. D) insects.
- 33) Which of the following options correctly pairs a biome and its characteristics? 33) _____
A) chaparral=mild, rainy winters; long, hot, but wet summers
B) tundra=very cold winters; only the upper layer of the soil thaws during summer
C) savanna=long, cold winters, vegetation dominated by conifers
D) temperate broadleaf forest=mild winters, moderate rainfall, predominantly dicot vegetation
- 34) Which of the following statements about deserts and the organisms that live there is *true*? 34) _____
A) Air temperatures in cold deserts, such as those west of the Rocky Mountains, may never fall below 30 degrees C.
B) Growth and reproduction occur year-round in deserts.
C) Many desert animals are nocturnal.
D) Desert plants typically produce very few seeds.

- 35) You are reading the journal of an amateur naturalist who visited the Sonoran Desert in the last century. Which of his descriptions of desert plants would you question? 35) _____
A) a perennial that flowers only after years of vegetative growth and produces a large number of seeds
B) a common annual that produces one large seed per plant
C) a plant whose seeds will not germinate unless soaked
D) a late winter hillside covered with wildflowers
- 36) Chaparral vegetation occurs around much of the central valley of central and southern California. This biome is very similar to that found 36) _____
A) in the Australian interior.
B) in central Asia.
C) on the southeast coast of the United States.
D) in the Mediterranean region.
- 37) Which of the following is characteristic of the chaparral biome? 37) _____
A) dense, broadleaf shrubs
B) animal species limited to lizards and snakes
C) many plants with seeds that need fire to germinate
D) low amounts of rainfall at unpredictable periods throughout the year
- 38) Most of the best agricultural soils in the United States are found in areas that were formerly 38) _____
A) tropical rain forest. B) temperate grasslands.
C) taiga forest. D) tundra.
- 39) The factor(s) that help to perpetuate temperate grasslands, such as the American prairies, and prevent them from becoming woodlands include 39) _____
A) periodic drought and fires. B) poor soil.
C) large numbers of cacti. D) mild winters with very little rain.
- 40) In which of the following biomes would you expect to find the highest abundance of large, grazing mammals? 40) _____
A) desert B) temperate grassland
C) temperate forest D) chaparral
- 41) Which of the following statements about temperate broadleaf forests is *true*? 41) _____
A) Temperate broadleaf forests have very poor soil.
B) Oak, hickory, birch, beech, and maple are common trees in temperate broadleaf forests.
C) Temperate broadleaf forests have a narrow range of temperatures over the course of a year.
D) Temperate broadleaf forests are less open than tropical rain forests.
- 42) Which of the following biomes is dominated by coniferous trees adapted to surviving long, harsh winters and short, wet summers? 42) _____
A) temperate broadleaf forest B) tundra
C) savanna D) coniferous forests

- 43) Which of the following statements about coniferous forests is *true*? 43) _____
- A) Coniferous forests usually have nutrient-rich soils.
 - B) Coniferous forests are the smallest terrestrial biome.
 - C) Coniferous forests are characterized by long but mild winters and short, dry summers that are sometimes warm.
 - D) Coniferous forests may experience considerable precipitation, but usually in the form of snow.
- 44) Which of the following tundra features would be found at the top of the Andes mountains in Ecuador? 44) _____
- A) a brief, bright growing season and a long, dark winter
 - B) permafrost
 - C) large trees with shallow roots
 - D) fierce winds and frigid nights
- 45) Which of the following factors is fundamentally responsible for the character of arctic tundra soils? 45) _____
- A) secretion of acid by lichens and plant roots
 - B) abundant winter snow
 - C) summer aridity
 - D) permafrost
- 46) Living things that live in the polar ice biome include 46) _____
- A) lichens, jaguars, gulls, and polar bears
 - B) mosses, ferns, gulls, and penguins
 - C) penguins, seals, moose, and springtails
 - D) mosses, lichens, seals, and polar bears
- 47) Which of the following has the greatest impact on the global water cycle? 47) _____
- A) human overuse of water resources for large cities
 - B) removing animals from their biome
 - C) connecting aquatic and terrestrial biomes
 - D) human destruction of forests

48) Which arrow in this image of the global water cycle includes transpiration?

48) _____



A) arrow A

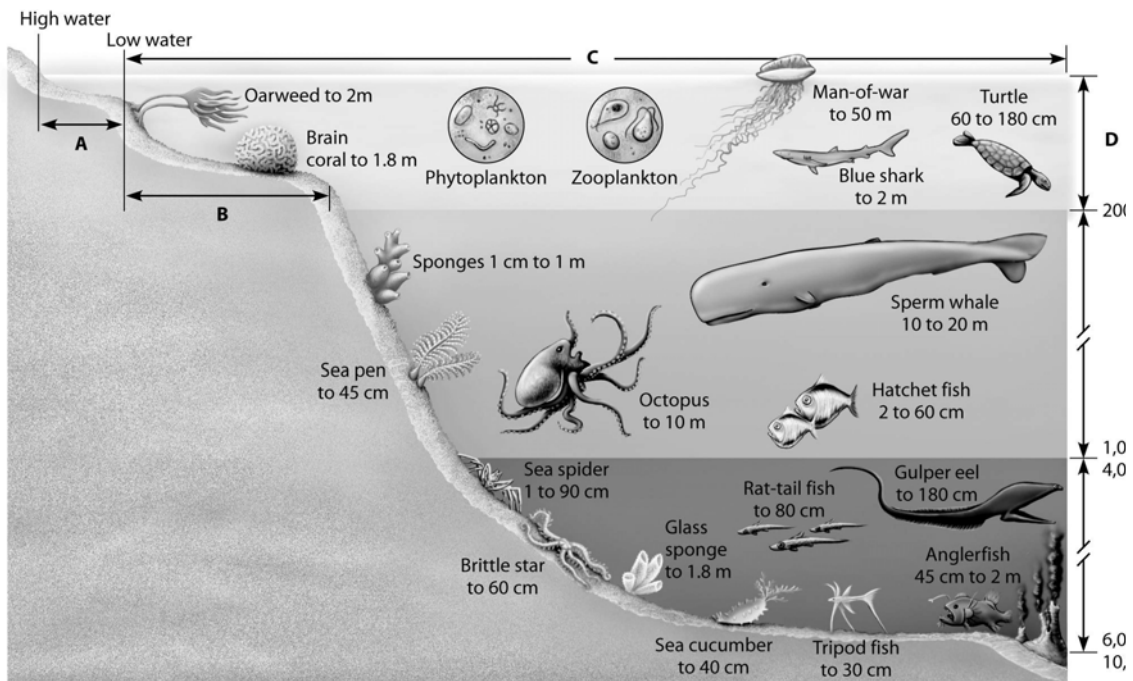
B) arrow B

C) arrow C

D) arrow D

49) Which of the zones shown in this depiction of an aquatic biome is the photic zone?

49) _____



A) zone A

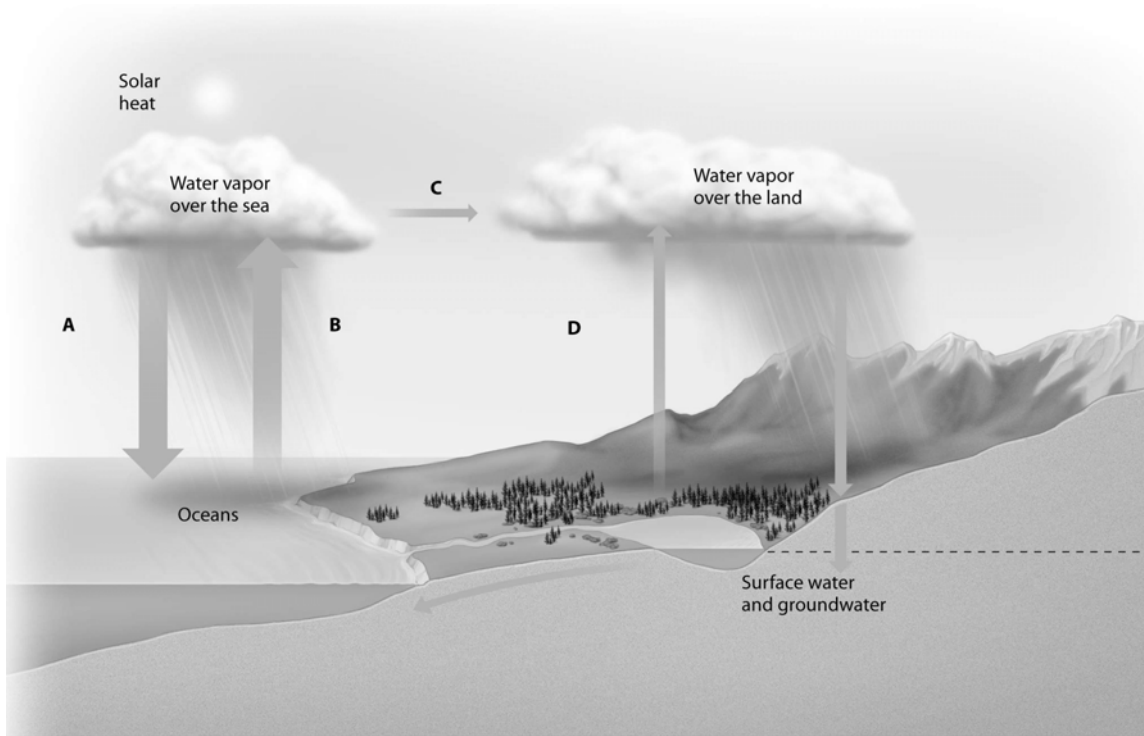
B) zone B

C) zone C

D) zone D

50) Which arrow in this image of the global water cycle includes transpiration?

50) _____



A) arrow A

B) arrow B

C) arrow C

D) arrow D

51) A group of individuals of a single species that occupy the same general area defines a

51) _____

A) subspecies.

B) population.

C) community.

D) clone.

52) Which of the following is an example of a population?

52) _____

A) all students attending colleges and universities in your state

B) the various plants found in prairies in the western United States

C) all of the microorganisms on your skin

D) all of the students in your classroom

53) Assume that there are five alligators per acre in a swamp in northern Florida. This is a measure of the alligator population's

53) _____

A) dispersion.

B) range.

C) density.

D) intrinsic rate of increase.

54) The pattern of distribution for a certain species of kelp is clumped. We would expect that the pattern of distribution for a population of snails that live on the kelp would be

54) _____

A) uniform.

B) random.

C) homogeneous.

D) clumped.

55) You drive through Iowa in the spring and notice that along a stretch of several kilometers, every third fence post has a male redwing blackbird perched on it defending its nesting territory. This is an example of

55) _____

A) random dispersion.

B) uniform dispersion.

C) clumped dispersion.

D) artificial dispersion.

- 56) The density of Douglas firs in an old-growth forest is estimated by counting the Douglas firs in four sample plots of 1 hectare each. The number of fir trees in the plots is 10, 12, 7, and 11, respectively. What is the estimated density of firs in the forest? 56) _____
 A) 10 trees per hectare B) 25 trees per hectare
 C) 20 trees per hectare D) 5 trees per hectare
- 57) To obtain optimal production in a small garden, one should 57) _____
 A) plant seeds in a uniform pattern throughout the garden.
 B) plant seeds in rows with minimal spacing between rows.
 C) sow seeds randomly throughout the garden.
 D) plant seeds in clumps with large spaces between clumps.
- 58) A survivorship curve is a 58) _____
 A) graph that plots an individual's likelihood of reproducing as a function of age.
 B) model for population growth that incorporates the concept of carrying capacity.
 C) graph that shows the effect of predation on a prey population.
 D) graph that plots an individual's likelihood of being alive as a function of age.
- 59) A Type I survivorship curve is associated with which of the following life history traits? 59) _____
 A) infant mortality being much greater than adult mortality
 B) large numbers of offspring being produced
 C) a short life span for most individuals
 D) parents providing extended care for their young
- 60) A survivorship curve that involves producing very few offspring, each of which has a high probability of surviving to adulthood, is typical of 60) _____
 A) rodents. B) elephants. C) sea stars. D) oysters.
- 61) The maximum number of individuals a habitat can support is called its 61) _____
 A) community size. B) carrying capacity.
 C) reproductive potential. D) density-dependent factor.
- 62) Consider a stable frog population living at carrying capacity in a pond. If an average female produces 6,000 eggs during her lifetime and an average of 300 tadpoles hatch from these eggs, how many of these tadpoles will, on average, survive to reproduce? 62) _____
 A) 0 B) 2 C) more than 100 D) 10 to 20
- 63) A population of fungi in a yard produces 10 mushrooms in year 1, 20 in year 2, and 40 in year 3. If this trend continues, by year 5 there will be _____ mushrooms. 63) _____
 A) 160 B) 80 C) 40 D) 320
- 64) A newly mated queen ant establishes an ant nest in an unoccupied patch of suitable habitat. The population of the nest grows quickly at first, then levels off at carrying capacity. Which of the following types of equation will best describe its population growth? 64) _____
 A) exponential B) logistic C) linear D) logarithmic
- 65) A test tube is inoculated with 1×10^3 cells of a bacterial strain that has a generation time of 30 minutes. The carrying capacity of the test tube for this strain is 6×10^9 cells. What will the bacterial population be after 90 minutes of culturing? 65) _____
 A) 1×10^9 B) 1×10^{12} C) 8×10^3 D) 3×10^3

- 66) If an ecosystem has a carrying capacity of 1,000 individuals for a given species, and 2,000 individuals of that species are present, we can predict that the population _____
A) size will remain at equilibrium. B) size will slowly increase.
C) will show a clumped dispersion pattern. D) size will decrease.
- 67) If a population has a birth rate of 40 individuals per 1,000 per year and a death rate of 30 individuals per 1,000 per year, how will the population change each year? (Assume that the population is below carrying capacity and that there is no immigration or emigration.) _____
A) It will increase by 1%. B) It will decrease by 70%.
C) It will increase by 5%. D) It will increase by 100%.
- 68) A human population will achieve zero population growth if _____
A) no couple has more than one child.
B) the birth rate equals the intrinsic rate of increase r .
C) couples have an average of about 2.25 children each (to account for some children who do not survive to reproduce).
D) no couple has more than two children.
- 69) The death by bubonic plague of about one-third of Europe's population during the fourteenth century is a good example of _____
A) a density-dependent effect. B) abiotic factors limiting population size.
C) carrying capacity. D) a density-independent effect.
- 70) A tidal wave wipes out the entire population of mice living on an island. This is an example of _____
A) the interaction between density-dependent and abiotic factors.
B) a density-dependent effect.
C) Type III survivorship.
D) the effects of abiotic factors.
- 71) In the logistic growth model, as population size increases, birth rates _____
A) and death rates increase. B) decline but death rates remain steady.
C) decline and/or death rates increase. D) remain constant and death rates increase.
- 72) Which of the following is most clearly a case of density-dependent population regulation? _____
A) the summer drying of savanna grass for an insect that feeds on grass sap
B) the occurrence of rainstorms for an opportunistic desert annual
C) the first hard frost of fall for a population of annual morning glory vines
D) a dangerous new flu strain that is transmitted among humans by sneezing
- 73) In terms of population dynamics, what is "boom-and-bust" cycling? _____
A) a situation in which a population moves back and forth between rapid growth and decline
B) a situation in which a growing population overshoots the carrying capacity of its environment and experiences a crash before stabilizing
C) a situation in which the populations of a predator species and a prey species oscillate in unison
D) a situation in which the sex ratio in a population shows repeated oscillations

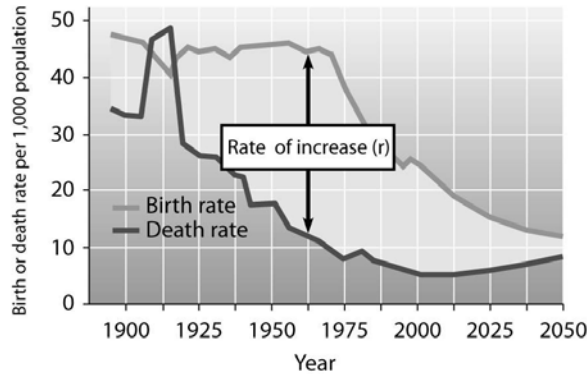
- 74) An ecologist hypothesizes that predation by a particular owl species is the major factor controlling the population of a particular rabbit species. The first step in testing this hypothesis would be to determine 74) _____
- A) what food the rabbits eat.
 - B) whether populations of the rabbit that live outside the range of the owl have higher population densities.
 - C) to which diseases the rabbit population is subject.
 - D) whether the owls eat the rabbits.
- 75) An ecologist hypothesizes that predation by a particular owl species is the major factor controlling the population of a particular rabbit species. If this is the case, which of the following population effects could be expected in this rabbit-owl pair? 75) _____
- A) A fall in the owl population should cause a fall in the rabbit population.
 - B) A fall in the rabbit population should cause an increase in the owl population.
 - C) An increase in the owl population should cause a fall in the rabbit population.
 - D) An increase in the incidence of disease in the rabbit population should not change the owl population.
- 76) An *r*-selected species typically 76) _____
- A) is large-bodied and long-lived.
 - B) offers considerable parental care to offspring.
 - C) has an advantage in habitats that experience unpredictable disturbances.
 - D) lives in stable climates.
- 77) Which of the following organisms best illustrates *K*-selection? 77) _____
- A) the production of thousands of eggs every spring by frogs
 - B) a polar bear producing one or two cubs every three years
 - C) mice that produce three litters of 10–15 babies in the course of a summer
 - D) a species of weed that quickly spreads into a region of cleared trees
- 78) Guppies from Trinidad form two distinct populations that differ in several life history traits that appear to relate to the local predator populations, pike-cichlids or killifish. Which of the following experiments would test the heritability of these traits? 78) _____
- A) Introduce cichlids into a habitat with killifish.
 - B) Raise both populations with cichlids to see if the population of smaller, faster-maturing guppies reproduces more quickly.
 - C) Provide additional food to the guppies from cichlid habitats to see if they will grow to the same size as guppies from the killifish habitat.
 - D) Raise both populations without predators to see if they maintain their life history traits.
- 79) Which of the following will likely decrease a population's size? 79) _____
- A) decreasing the food supply available to the population
 - B) practicing sustainable resource management in its habitat
 - C) improving the quality of its habitat
 - D) increasing the size of its habitat

- 80) Which of the following statements about insecticides is *true*? 80) _____
- A) Simply killing many individuals is often the best way to reduce the size of a pest population.
 - B) Prey species often have a higher reproductive rate than do predators.
 - C) Most insecticides kill the pest but not the pest's natural predators.
 - D) To control agricultural pests, pest management uses biological controls, chemicals, or cultural methods, but never a combination of these.
- 81) Which of the following statements about human population growth is *true*? 81) _____
- A) Human population size has increased faster and faster throughout human history.
 - B) Demographic transition is a transition from high birth rates and high death rates to low birth rates and low death rates.
 - C) During a demographic transition, birth rates typically drop first due to the availability of reliable contraception.
 - D) Human population size on Earth today is at equilibrium.
- 82) A demographic tool used to predict a population's future growth is 82) _____
- A) maximum sustained growth.
 - B) a hairline growth curve.
 - C) age structures.
 - D) demographic transition.
- 83) What is the age structure of a population? 83) _____
- A) the curve that results when the likelihood of dying is plotted as a function of age
 - B) the curve that results when the likelihood of being alive is plotted as a function of age
 - C) the difference in the age distribution of a population at two different points in time
 - D) the proportion of individuals in different age groups
- 84) If most of the individuals of a human population are in their pre-reproductive years, you would expect the population size to _____ after 20 years. 84) _____
- A) stay the same
 - B) decrease and then stabilize
 - C) increase
 - D) decrease
- 85) Which of the following statements about human demographic trends is *true*? 85) _____
- A) The movement from high birth rates and low death rates to low birth rates and high death rates is called the demographic transition.
 - B) After 1950, mortality rates increased rapidly in most developing countries.
 - C) A human population in which women reproduce at an later age will experience slower population growth.
 - D) As women's status and education increase, they choose to have more children.
- 86) The age structure of the United States in 2010 shows 86) _____
- A) that a greater proportion of the population is elderly now than in earlier decades.
 - B) that the United States has not yet gone through a demographic transition.
 - C) a broad base, suggesting a high birth rate.
 - D) a broad base, suggesting a low birth rate.
- 87) The world human population 87) _____
- A) is starting to decline.
 - B) has leveled off at carrying capacity.
 - C) is growing, but at a slower rate than in the last century.
 - D) is growing faster now than ever before.

88) The human population on Earth is expected to reach 9.5 billion people by _____
 A) 3150. B) 2050. C) 2093. D) 2015.

89) An ecological footprint _____
 A) is a means of determining increases in populations that lived in the past.
 B) will estimate population movements.
 C) is a means of understanding resource availability and usage.
 D) measures dispersion and adaptability.

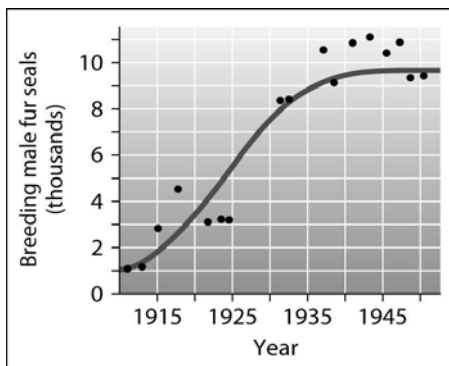
90) According to this graph of population growth in Mexico, in what year was the rate of population increase in Mexico the greatest? _____



Data from Population Reference Bureau, 2000 and U. S. Census Bureau International Data Base, 2003.

A) 1965 B) 2000 C) 1912 D) 1930

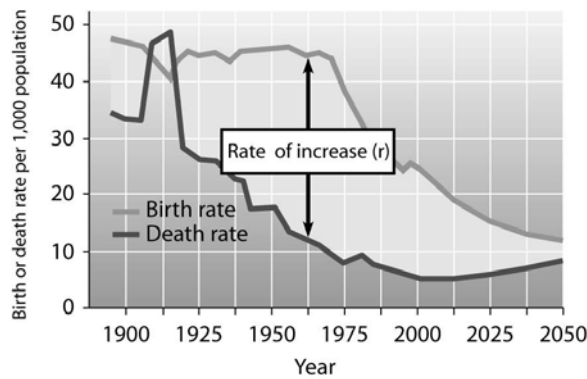
91) According to this graph of the population growth of fur seals, in what year did the population first reach its carrying capacity? _____



A) 1930 B) 1925 C) 1950 D) 1940

92) According to this graph of population growth in Mexico, in what year was the rate of population increase in Mexico the greatest?

92) _____



Data from Population Reference Bureau, 2000 and U. S. Census Bureau International Data Base, 2003.

- A) 1930 B) 1912 C) 2000 D) 1965

93) A community is composed of

93) _____

- A) living organisms and their nonliving environment.
 B) the factors that constitute an organism's niche.
 C) one species of organism living in a specific environment on Earth.
 D) potentially interacting populations of different kinds of organisms.

94) One reason it is important to understand community ecology is

94) _____

- A) to understand the life cycle of fish, such as cichlids.
 B) to aid in conservation of endangered species.
 C) to provide an enriched habitat for humans.
 D) for identification of stomach microbes.

95) An owl and a hawk both eat mice. Which of these describes the relationship between a hawk and an owl?

95) _____

- A) mutualism B) parasitism C) predation D) competition

96) When two different populations in a community benefit from their relationship with each other, the result is called

96) _____

- A) mutualism. B) competition. C) benefism. D) parasitism.

97) When a crocodile eats a fish, the interspecific interaction between the two could be expressed as _____ for the crocodile and _____ for the fish.

97) _____

- A) + . . . - B) - . . . - C) - . . . + D) + . . . +

98) Which of the following is an example of predation?

98) _____

- A) a lizard's camouflage
 B) a hawk swooping down quickly to capture, kill, and eat a prairie king snake
 C) the vivid colors of the poison-arrow frog in Costa Rica
 D) a goldfinch feeding on the seeds of a thistle plant

99) The sum total of a population's use of the biotic and abiotic resources of its habitat constitutes its

99) _____

- A) niche. B) evolution. C) range. D) environment.

- 100) In an ecosystem, you would expect to find interspecific competition between _____
A) populations of two species that occupy the same niche.
B) a prey species and its predator.
C) males and females of a species in which both sexes occupy the same niche.
D) two wasp species that mimic each other's appearance.
- 101) If an overlap develops between the ranges of two closely related species, and if the species occupy the same niche in the zone of overlap, what will probably happen in the zone of overlap? _____
A) One species will take over most or all of the zone of overlap.
B) Both species will coexist, provided the environment in the zone of overlap is similar to that of one of the individual ranges.
C) Both species will coexist, provided the environment in the zone of overlap is different from that in either individual range.
D) A new species will arise by hybridization.
- 102) Dinoflagellates are important to coral and coral-dwelling animals because they _____
A) produce energy that is used by coral animals through photosynthesis.
B) are toxic to species that prey on reef-dwelling fish.
C) provide shelter for the fast-growing seaweeds associated with coral.
D) produce CO₂ and nitrogen for coral.
- 103) Camouflage typically evolves as a result of _____
A) mutualism. B) herbivory.
C) interspecific competition. D) predation.
- 104) One mechanism that prey populations evolve to avoid predation is _____
A) secretion of digestive enzymes that hydrolyze glucose.
B) secretion of enzymes that break down toxic plant compounds.
C) development of a short gestation period.
D) chemical defenses.
- 105) Some herbivore-plant interactions evolved through a series of reciprocal evolutionary adaptations in both species. The process is called _____
A) coevolution. B) herbivory. C) selection. D) trophism.
- 106) Most plants have a variety of chemicals, spines, and thorns because the plants _____
A) are relying upon Batesian mimicry.
B) cannot run away from herbivores.
C) are camouflaged into their surroundings.
D) feed on the organisms that try to eat them.
- 107) The prokaryotes that cause tooth decay have a _____ relationship with humans. _____
A) mutualistic B) predatory C) parasitic D) competitive
- 108) In addition to abiotic factors, community composition of plants can be severely compromised by _____
A) parasites and pathogens. B) non-native birds.
C) rapid coevolution. D) introduction of chestnut trees.

- 109) Within an ecosystem, a tree is a _____
 A) detritivore. B) producer.
 C) secondary consumer. D) primary consumer.
- 110) On Earth, most organic molecules are produced by _____
 A) photosynthesis. B) hydrolysis.
 C) cellular respiration. D) glycolysis.
- 111) In a hypothetical food chain consisting of grass, grasshoppers, sparrows, and hawks, the grasshoppers are _____
 A) primary consumers. B) secondary consumers.
 C) primary producers. D) secondary producers.
- 112) A hypothetical community on a barren mid-Atlantic island consists of two fish-eating seabirds (the booby and the noddy), the fungi and microorganisms that live on the birds' dung, a tick that feeds on these two birds, a cactus, a moth that feeds on cast-off feathers, a beetle that lives on dung organisms, and spiders that eat the other arthropods. There are no other plants and no lichens. Which of the following choices *incorrectly* pairs a member of this assemblage with its position in the trophic structure? _____
 A) fungi, detritivores B) moth, detritivore
 C) booby, primary consumer D) cactus, producer
- 113) In a food chain consisting of phytoplankton → zooplankton → fish → fishermen, the fishermen are _____
 A) secondary consumers. B) tertiary consumers.
 C) secondary producers. D) quaternary consumers
- 114) Organisms that digest molecules in organic material and convert them into inorganic forms are _____
 A) detritivores. B) primary producers.
 C) decomposers. D) primary consumers.
- 115) In a certain ecosystem, field mice are preyed on by snakes and hawks. The entry of wild dogs into the system adds another predator of the mice. Of the following, the most likely short-term result of this addition is _____
 A) an increase in snake population.
 B) a tendency for hawks to prey on the dogs.
 C) migration of the hawks to another ecosystem.
 D) a reduction in numbers of mice.
- 116) Which of the following statements regarding food webs is *true*? _____
 A) A consumer eats only one type of producer.
 B) Several species of primary consumers may feed on the same species of producer.
 C) Detritivores consume dead organic matter from a specific trophic level.
 D) Nutrient transfer moves from producer to consumer and back.
- 117) The number of species in a community is called the _____
 A) species index. B) species diversity.
 C) species richness. D) species population.

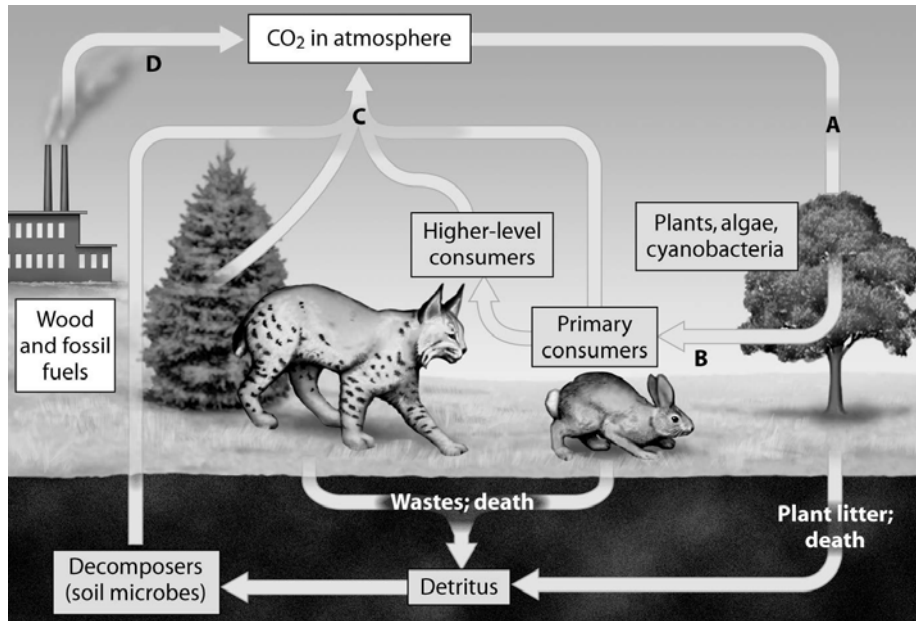
- 118) We expect that a keystone species that is a predator will 118) _____
A) reduce the diversity of the community.
B) harvest prey species down to extinction.
C) maintain the species diversity in a community.
D) help many of its prey reproduce.
- 119) During ecological succession, the species composition of a plant community generally 119) _____
A) changes gradually because each species responds differently to the changing environment.
B) remains stable as long as major environmental factors (climate, human interference) remain constant.
C) changes until forest is established and a single species remains.
D) changes from a diverse community in which many plants are common to one in which a few species are numerically dominant.
- 120) When a New England farm is abandoned, its formerly plowed fields first become weedy meadows, then shrubby areas, and finally forest. This sequence of plant communities is an example of 120) _____
A) secondary succession. B) primary succession
C) a trophic chain. D) evolution.
- 121) Non-native species that are introduced in new environments, spread far beyond the original point of introduction, and cause damage are called 121) _____
A) destructive species. B) proprietary species.
C) invasive species. D) enemy species.
- 122) Biological control is defined as 122) _____
A) the exploitation of coevolutionary principles to produce pesticides.
B) the use of chemicals, such as pesticides, to control pests.
C) the intentional release of a natural enemy of a pest population.
D) an intentional attempt to increase the numbers of specific prey populations.
- 123) The flow of _____ into ecosystems occurs in one direction only, while _____ are recycled within the ecosystem itself. 123) _____
A) genetic information . . . genotypes B) organic compounds . . . minerals
C) minerals . . . energy compounds D) energy . . . chemicals
- 124) Which of the following processes does *not* occur in ecosystems? 124) _____
A) Energy flows through the system.
B) The energy source that powers the system is used by consumers to make organic compounds.
C) Producers convert light energy to chemical energy.
D) Carbon is cycled between biotic and abiotic forms.

- 125) A biology teacher takes fish, algae, pond weed, invertebrates, and bottom muck from a local pond and establishes them in an aquarium. When the system is stable, the teacher seals it into a large, airtight glass box and leaves the box in a sunny location. After three months, the organisms in the aquarium appear alive and healthy. Which of the following statements about the experiment is true? 125) _____
- A) During the three months, the biomass of animal life was greater than the biomass of plant life.
 - B) The air in the glass box contains no carbon dioxide.
 - C) No energy has entered or left the glass box during the three months.
 - D) Some of the energy in the system has moved from one organism to another during the three months.
- 126) For a given area and time period, the amount of solar energy converted to chemical energy in organic compounds is called 126) _____
- A) primary succession.
 - B) secondary production.
 - C) secondary succession.
 - D) primary production.
- 127) In an average ecosystem, about how much energy is present in the organisms at a given trophic level compared to the organisms at the next higher trophic level? 127) _____
- A) ten times as much
 - B) half as much
 - C) twice as much
 - D) a tenth as much
- 128) About how much of the energy in the producers of an ecosystem will be available to secondary consumers in this ecosystem? 128) _____
- A) about 50%
 - B) about 1%
 - C) about 10%
 - D) 100%
- 129) You want to do all that you can to safeguard the environment by preserving energy. One simple thing that you can do is to eat a diet consisting only of organisms that are 129) _____
- A) producers.
 - B) secondary consumers.
 - C) a mix of producers and consumers.
 - D) primary consumers.
- 130) Which of the following substances is cycled between organic matter and abiotic reservoirs? 130) _____
- A) nucleic acid
 - B) carbon
 - C) protein
 - D) fat
- 131) Given that CO₂ is produced by cellular respiration, why does the amount of CO₂ in the atmosphere remain relatively constant? (When answering this question, exclude the impact of human activities on atmospheric CO₂.) 131) _____
- A) CO₂ mostly forms carbonate rocks.
 - B) CO₂ is trapped in dead organisms' bodies.
 - C) CO₂ is converted in photosynthesis to carbohydrates.
 - D) CO₂ is split apart during photosynthesis.
- 132) Carbon mainly cycles between the biotic and abiotic worlds through the processes of 132) _____
- A) transpiration and photosynthesis.
 - B) cellular respiration and photosynthesis.
 - C) cellular respiration and transpiration.
 - D) evaporation and photosynthesis.

- 133) Which of the following statements about the phosphorus cycle is *true*? 133) _____
- A) Phosphorus has its main abiotic reservoir in water.
 - B) Plants release dissolved phosphorus ions in the soil.
 - C) Guano can be used by farmers to add phosphorus to the soil.
 - D) Phosphorus that drains from soils into the sea becomes part of new rock and will cycle back into living organisms.
- 134) Which of the following statements about the nitrogen cycle is *true*? 134) _____
- A) The nitrogen cycle requires different types of bacteria.
 - B) Nitrogen gas is converted to nitrates in plant leaves.
 - C) When plants and animals die, nitrogen is removed from the nitrogen cycle.
 - D) Nitrogen cannot be cycled through living organisms.
- 135) Which of the following represents a step in the nitrogen cycle? 135) _____
- A) nitrogen-fixing bacteria convert atmospheric nitrogen to nitrates
 - B) nitrogen-fixing bacteria convert atmospheric nitrogen to ammonium
 - C) denitrifiers convert ammonium to atmospheric nitrogen
 - D) nitrites bind to soil particles
- 136) Denitrifying bacteria convert _____ to _____. 136) _____
- A) nitrogen gas . . . nitrates
 - B) ammonium . . . nitrates
 - C) nitrogen gas . . . nitrites
 - D) nitrates . . . nitrogen gas
- 137) Which of the following ecological problems might result from fertilizing a golf course with phosphorus-rich fertilizer? 137) _____
- A) poisoning of the grass caused by excess phosphorus
 - B) a slowdown in the weathering of rock that releases phosphates into the soil under natural conditions
 - C) heavy growth of algae and cyanobacteria in lakes and rivers caused by phosphorus runoff
 - D) accumulation of toxic levels of phosphorus in animals in the vicinity, especially those higher on the food chain
- 138) Eutrophication of a lake could occur if 138) _____
- A) phosphate-rich detergents were dumped into the lake.
 - B) runoff from overfertilized lawns was prevented from reaching the lake.
 - C) fertilizers were applied in an insoluble form.
 - D) fish were removed.
- 139) One of the most worrisome results of the large-scale clearing and cultivation of land is 139) _____
- A) hurricanes.
 - B) the inability to supply fresh water.
 - C) erosion and soil degradation.
 - D) the inability to supply enough food for growing populations.

140) Which arrow shows CO₂ released as a product of cellular respiration?

140) _____



A) arrow A

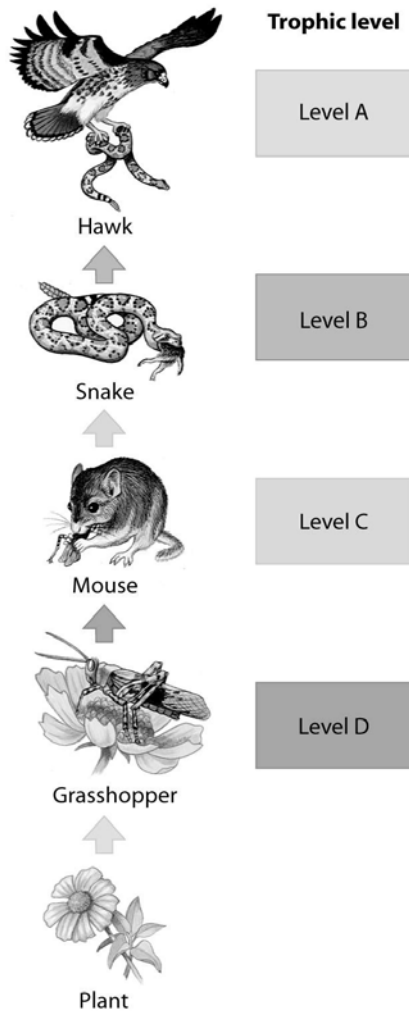
B) arrow B

C) arrow C

D) arrow D

141) Which trophic level in this food chain represents the secondary consumer?

141) _____



A terrestrial food chain

A) trophic level A

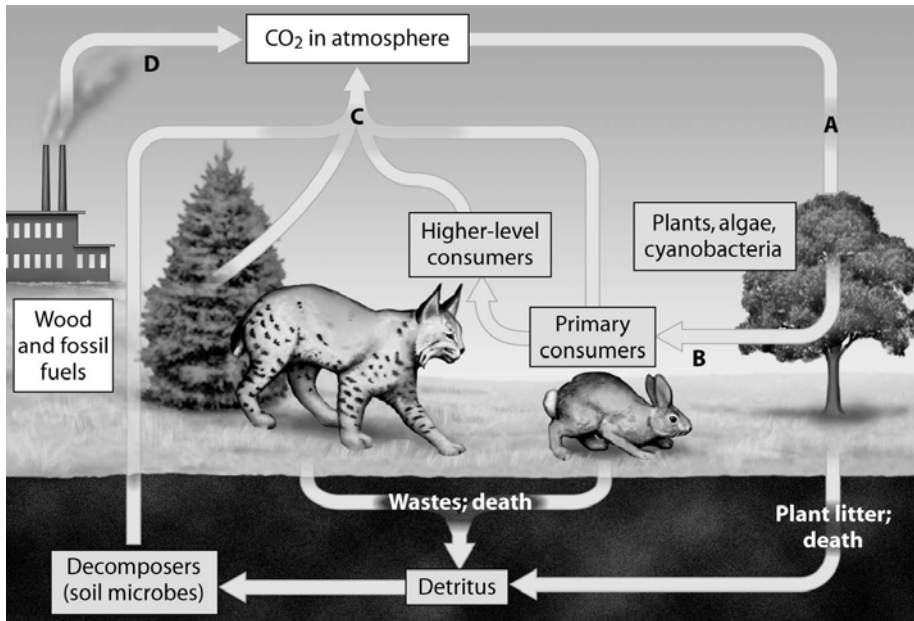
B) trophic level B

C) trophic level C

D) trophic level D

142) Which arrow shows CO₂ released as a product of cellular respiration?

142) _____



A) arrow A

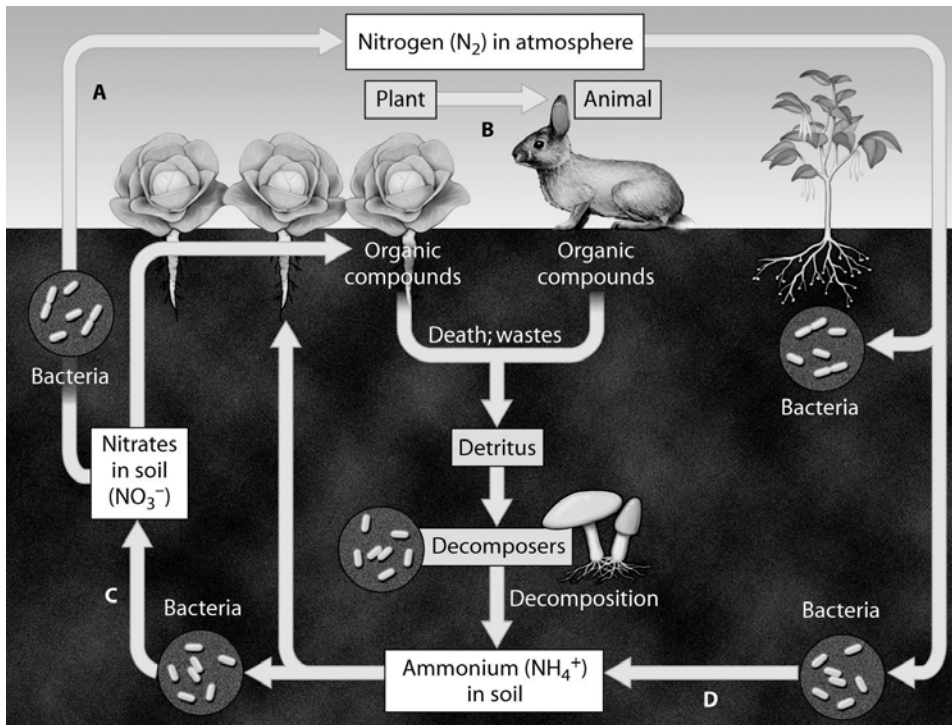
B) arrow B

C) arrow C

D) arrow D

143) Which arrow shows nitrogen fixation?

143) _____



A) arrow A

B) arrow B

C) arrow C

D) arrow D

- 144) The primary goal of conservation biology is to _____
A) counter the loss of biodiversity.
B) maximize the land set aside for wildlife.
C) estimate the total number of species that exist.
D) integrate human culture back into nature.
- 145) Approximately _____ living species have been named and described. _____
A) 1.8 million B) 750,000 C) 10 million D) 30 million
- 146) The current rate of extinction may be as much as _____ times higher than at any other time in the past 100,000 years. _____
A) 10 B) 1,000 C) 10,000 D) 100
- 147) Biodiversity considers _____
A) the genetic diversity within and between populations of a species.
B) commensal relationships between species.
C) the fate of water in the ecosystem.
D) the relationships of individuals to a food chain.
- 148) Currently, the single greatest threat to biodiversity is _____
A) global warming. B) overexploitation of populations for food.
C) the introduction of exotic species. D) habitat destruction due to humans.
- 149) You arrive back in the United States after having visited a foreign country located on another continent. The customs agent stops the person in front of you and confiscates the fruit basket this person is bringing home. Being the knowledgeable person you are, you calmly explain to your enraged fellow traveler that the reason for the detainment is that the fruit basket may be _____
A) contaminated with sufficient DDT to cause serious harm to anyone who eats the fruit.
B) carrying an exotic species that could damage North American ecosystems.
C) carrying endangered fruit.
D) contaminated with CFCs that will damage the ozone layer above North America.
- 150) The three greatest current threats to biodiversity, in order starting with the greatest, are _____
A) habitat loss, invasive species, and overharvesting.
B) habitat loss, overharvesting, and invasive species.
C) invasive species, overharvesting, and habitat loss.
D) invasive species, habitat loss, and overharvesting.
- 151) Which of the following is an invasive species? _____
A) elephant in India
B) brown tree snake in Guam
C) carrier pigeon in the continental United States
D) mallard duck in the western United States

- 152) To decrease pollution from sulfur, your local power plant built very tall smokestacks. The ultimate consequence of this would most likely be 152) _____
- A) to create an environmental problem at a distance from the power plant.
 - B) biological magnification.
 - C) a decrease in the pH of local lakes.
 - D) to dilute the sulfur pollutants in the atmosphere and thus reduce their effects on the environment.
- 153) DDT and mercury 153) _____
- A) were once used as an energy source.
 - B) contribute to acid precipitation.
 - C) deplete the ozone layer.
 - D) accumulate in the tissues of organisms.
- 154) Which of the following is a likely consequence of the thinning of the ozone layer? 154) _____
- A) decreases in flying insect populations
 - B) global warming
 - C) increases in skin cancer
 - D) increases in escape of heat from Earth
- 155) You spray your lawn with a pesticide. The concentration of the pesticide in the tissues of the grass on your lawn is 10^{-6} parts per million (ppm). Grasshoppers eat the grass and are in turn eaten by rats, which are then eaten by owls. At each successive trophic level, the concentration of pesticides increases. The term for this process is 155) _____
- A) biological extirpation.
 - B) biological magnification.
 - C) bioconcentration.
 - D) trophic concentration.
- 156) Global warming is the result of 156) _____
- A) increased solar activity.
 - B) rising concentration of greenhouse gases.
 - C) pollution.
 - D) rises in ocean levels.
- 157) Greenhouse gases include 157) _____
- A) nitrous oxide and oxygen.
 - B) carbon dioxide and nitrogen.
 - C) nitrogen and oxygen.
 - D) carbon dioxide and methane.
- 158) Average global temperature has risen _____ over the past 100 years. 158) _____
- A) 3°C
 - B) 5°C
 - C) 10°C
 - D) 0.8°C
- 159) CO₂ in the atmosphere is absorbed by _____ and converted into biomass. 159) _____
- A) the ozone layer
 - B) photosynthetic organisms
 - C) large land masses
 - D) other atmosphere gases
- 160) Scientists worry that global warming will result in the oceans 160) _____
- A) becoming more basic.
 - B) containing less dissolved oxygen.
 - C) becoming more acidic.
 - D) containing less dissolved carbon dioxide.
- 161) One way in which populations and species have been responding to climate change is by 161) _____
- A) shifting their distribution.
 - B) changing their metabolism.
 - C) evolving a flexible mode of reproduction.
 - D) changing their coat color.

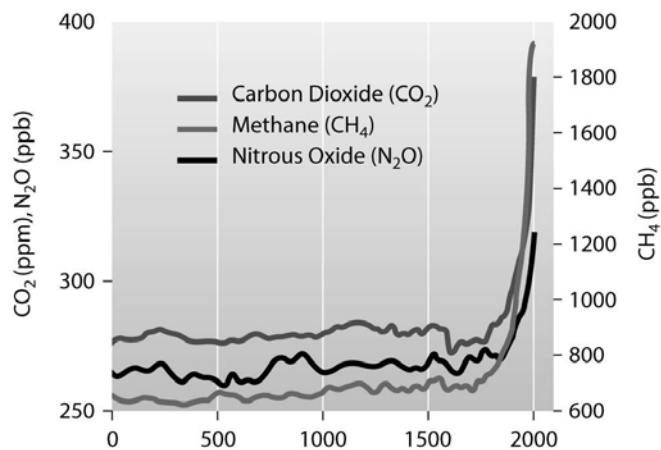
- 162) Which of the following is *not* an observed effect of global warming on organisms? 162) _____
A) Many polar bears show signs of starvation as their hunting grounds melt away.
B) Many butterfly populations have shifted their ranges to the north.
C) Some species of birds and frogs now begin their breeding seasons later in the year.
D) Corals "bleach" when increased water temperatures cause them to expel their symbiotic algae.
- 163) The ability to change phenotype in response to local environmental conditions is called 163) _____
A) mutation. B) alteration of generations.
C) phenotypic plasticity. D) genetic drift.
- 164) Some populations, especially those with high genetic variability and short life spans, may avoid extinction as the climate changes through 164) _____
A) feedback inhibition. B) distribution of populations.
C) evolutionary adaptation. D) genetic shift.
- 165) Protecting the endangered black-footed ferret from extinction involved 165) _____
A) collecting individuals from multiple small populations and combining them into a single large population.
B) captive breeding and reintroduction.
C) vaccinating the remaining population against sylvatic plague.
D) providing food during harsh winters.
- 166) Captive breeding 166) _____
A) has allowed for the re-introduction of many species to areas from which they had disappeared.
B) can work for animals, but is generally not used for endangered plants.
C) is the main conservation technique used to try to save endangered species from extinction.
D) has advanced to the point where biologists believe it can be used to save most endangered species.
- 167) A regional assemblage of interacting ecosystems is a 167) _____
A) PVA. B) landscape. C) hot spot. D) biome.
- 168) Movement corridors 168) _____
A) can be harmful because they allow for the spread of disease.
B) reduce dispersal.
C) can be harmful because they allow for gene flow.
D) increase inbreeding.
- 169) Which of the following statements about movement corridors is *true*? 169) _____
A) Movement corridors are detrimental to species that migrate between habitats seasonally.
B) Movement corridors can promote inbreeding in declining populations.
C) Movement corridors can prevent the spread of disease.
D) Movement corridors can connect otherwise isolated habitat patches.

- 170) Habitats with many edges 170) _____
A) favor animals that prefer large, open ranges.
B) often result from human activities.
C) are the result of natural disasters.
D) result in a significant increase in diversity.
- 171) Small areas that are home to a large number of threatened species and an exceptional concentration of species found nowhere else on Earth are called 171) _____
A) exotic hot spots. B) biodiversity hot spots.
C) biologically magnified. D) endemic environments.
- 172) Species found in only one place on Earth are called _____ species. 172) _____
A) keystone B) endemic C) exotic D) hot spot
- 173) Most biodiversity hot spots are found in _____ regions. 173) _____
A) tundra B) western C) tropical D) temperate
- 174) About one-third of all animal and plant species are concentrated on _____ of Earth's land. 174) _____
A) 20% B) 5% C) 10% D) 1.5%
- 175) The greatest challenge facing the zoned reserve systems of Costa Rica is 175) _____
A) high predation by jaguars. B) soil erosion.
C) the growing human population. D) forest fires.
- 176) One result of Costa Rica's commitment to conservation is that 176) _____
A) about 95% of the country's land is protected in some way.
B) both protected park areas and the buffer zones around them have suffered only negligible deforestation.
C) ecotourism generates many jobs and brings in a significant fraction of the country's revenue.
D) destructive practices such as massive logging and large scale single-crop agriculture have been nearly eliminated.
- 177) The introduction of wolves into Yellowstone National Park in 1991 resulted in 177) _____
A) the death of all of the wolves, likely due to an insufficient amount of available prey.
B) ecological changes involving at least 25 species.
C) the migration of most of these wolves out of the park and back to Canada.
D) a general decline in overall habitat as death spread like wildfire.
- 178) The Yukon to Yellowstone Initiative is a plan to 178) _____
A) create a giant, fenced, private land area between the national parks in the United States to create a protected zone for wildlife.
B) connect all of the national parks in the United States.
C) connect all of the national parks in the western United States.
D) connect parks in the United States and Canada with protected corridors where wildlife can travel safely.

- 179) If wolves were now removed from Yellowstone National Park, we would expect that 179) _____
A) vegetation would increase, providing shelter for smaller animals.
B) the vegetation would remain unchanged.
C) elk populations would increase.
D) deer populations would decrease.
- 180) The aspect of conservation ecology concerned with returning degraded ecosystems (as nearly as possible) to their natural state is 180) _____
A) restoration ecology. B) sustainable development.
C) bioremediation. D) landscape ecology.
- 181) Using living organisms to clean up polluted ecosystems is known as 181) _____
A) landscaping. B) PVA.
C) biological demagnification. D) bioremediation.
- 182) The Kissimmee River Project is an 182) _____
A) example of a dam that interrupted the breeding of salmon and other species.
B) example of large-scale bioremediation to clean up a mercury spill.
C) attempt to restore the natural wetlands associated with the Kissimmee River.
D) effort to join two previously unconnected lakes to permit better drainage.
- 183) The Kissimmee River Project is intended to 183) _____
A) increase biodiversity of the region.
B) restrict ecotourism and other recreational usage in the impacted region.
C) drain natural wetlands in the central Florida region.
D) provide areas for homes and businesses.
- 184) Sustainable development 184) _____
A) will speed up evolution.
B) will require many people to contribute financially.
C) will require global, multinational cooperation.
D) will require making difficult decisions regarding travel to other planets.

185) According to this graph of changes in Earth's atmosphere, which of the following took place between 1800 and 2000?

185) _____

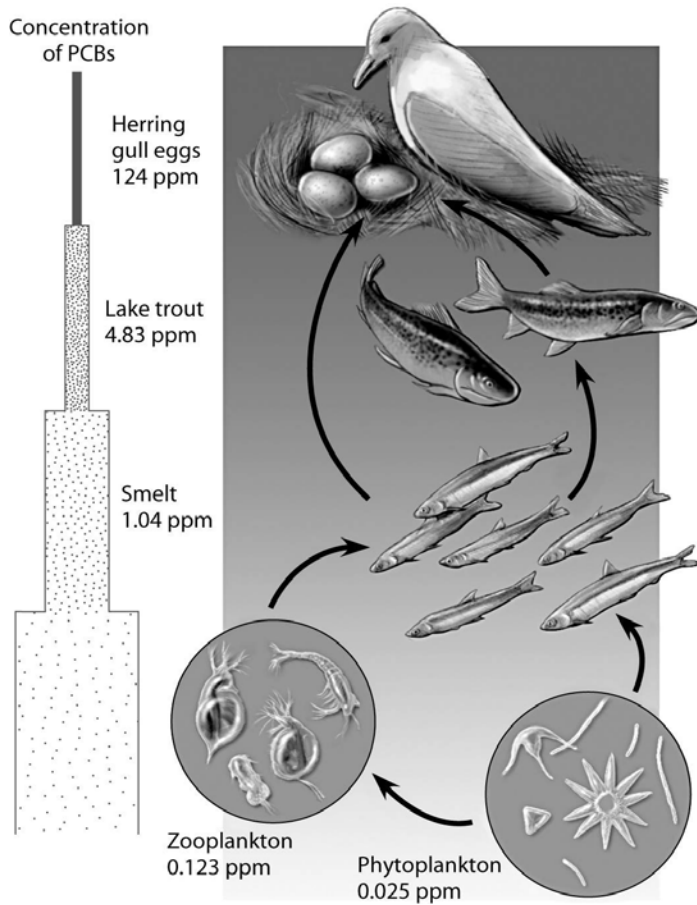


Graph from IPCC 2007. In *Climate change 2007: The physical science basis*. Contribution of Working Group 1 to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. S. Solomon et al. (eds.) Cambridge University Press, Cambridge, UK and New York, NY, FAQ 2.1, fig. 1. Used with permission.

- A) Nitrous oxide levels increased from 270 ppb to 390 ppb.
- B) Carbon dioxide levels increased from 290 ppm to 380 ppm.
- C) Methane levels increased from 270 ppm to almost 2,000 ppm.
- D) Carbon dioxide levels increased from 950 ppb to 1,800 ppb.

186) According to this figure, which organisms have the highest concentration of PCBs, and why?

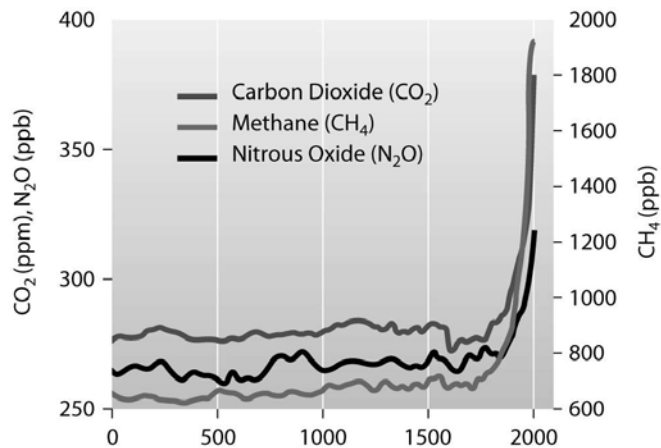
186) _____



- A) smelt, because they are in the middle of the food chain
- B) herring gulls, because they are at the bottom of the food chain
- C) herring gulls, because they are at the top of the food chain
- D) phytoplankton, because they are at the bottom of the food chain

187) According to this graph of changes in Earth's atmosphere, which of the following took place between 1800 and 2000?

187) _____



Graph from IPCC 2007. In *Climate change 2007: The physical science basis*. Contribution of Working Group 1 to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. S. Solomon et al. (eds.) Cambridge University Press, Cambridge, UK and New York, NY, FAQ 2.1, fig. 1. Used with permission.

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- D) Carbon dioxide levels increased from 950 ppb to 1,800 ppb.

Answer Key

Testname: LEH ECOLOGY

- 1) D
- 2) A
- 3) A
- 4) A
- 5) A
- 6) B
- 7) D
- 8) D
- 9) A
- 10) C
- 11) B
- 12) A
- 13) C
- 14) B
- 15) C
- 16) A
- 17) D
- 18) A
- 19) C
- 20) D
- 21) D
- 22) C
- 23) D
- 24) B
- 25) D
- 26) D
- 27) B
- 28) D
- 29) C
- 30) C
- 31) C
- 32) D
- 33) B
- 34) C
- 35) B
- 36) D
- 37) C
- 38) B
- 39) A
- 40) B
- 41) B
- 42) D
- 43) D
- 44) D
- 45) D
- 46) D
- 47) D
- 48) D
- 49) D
- 50) D

Answer Key

Testname: LEH ECOLOGY

- 51) B
- 52) D
- 53) C
- 54) D
- 55) B
- 56) A
- 57) A
- 58) D
- 59) D
- 60) B
- 61) B
- 62) B
- 63) A
- 64) B
- 65) C
- 66) D
- 67) A
- 68) C
- 69) A
- 70) D
- 71) C
- 72) D
- 73) A
- 74) D
- 75) C
- 76) C
- 77) B
- 78) D
- 79) A
- 80) B
- 81) B
- 82) C
- 83) D
- 84) C
- 85) C
- 86) A
- 87) C
- 88) B
- 89) C
- 90) A
- 91) D
- 92) D
- 93) D
- 94) B
- 95) D
- 96) A
- 97) A
- 98) B
- 99) A
- 100) A

Answer Key

Testname: LEH ECOLOGY

- 101) A
- 102) A
- 103) D
- 104) D
- 105) A
- 106) B
- 107) C
- 108) A
- 109) B
- 110) A
- 111) A
- 112) C
- 113) B
- 114) C
- 115) D
- 116) B
- 117) C
- 118) C
- 119) A
- 120) A
- 121) C
- 122) C
- 123) D
- 124) B
- 125) D
- 126) D
- 127) A
- 128) B
- 129) A
- 130) B
- 131) C
- 132) B
- 133) C
- 134) A
- 135) B
- 136) D
- 137) C
- 138) A
- 139) C
- 140) C
- 141) C
- 142) C
- 143) D
- 144) A
- 145) A
- 146) B
- 147) A
- 148) D
- 149) B
- 150) A

Answer Key

Testname: LEH ECOLOGY

- 151) B
- 152) A
- 153) D
- 154) C
- 155) B
- 156) B
- 157) D
- 158) D
- 159) B
- 160) C
- 161) A
- 162) C
- 163) C
- 164) C
- 165) B
- 166) A
- 167) B
- 168) A
- 169) D
- 170) B
- 171) B
- 172) B
- 173) C
- 174) D
- 175) C
- 176) C
- 177) B
- 178) D
- 179) C
- 180) A
- 181) D
- 182) C
- 183) A
- 184) C
- 185) B
- 186) C
- 187) C