**Biomes, Populations and Communities worksheet**

1. Which of the following communities living in a forest has the greatest biodiversity?
2. 50 bears, 60 rabbits, 58 beavers, 25 for trees and 15 birch trees
3. 4 bears, 30 rabbits, 7 beavers, 25 fir trees and 10 birch trees
4. 50 bears, 100 rabbits, 7 beavers, 25 for trees and 15 birch trees
5. 25 bears, 60 rabbits, 58 beavers, 5 fir trees and 7 birch trees
6. Which answer best describes what a coral reef is?
7. Coral reefs are non-living substances that float in the ocean
8. Coral reefs are a type of fish that live in oceans
9. Coral reefs are organisms whose skeleton is made up of CaCO3 and feed on algae
10. Coral reefs are a type of rock that other fish use as shelter
11. Scientists wanted to monitor the population of tigers in the savannah over a 2 year period. Use the information on the table to determine whether there was an increase, decrease or stable population after the 2 years. Show the calculations.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Births  | Deaths  | Emigration  | Immigration  |
| Year 1 | 9 | 4 | 7 | 3 |
| Year 2 | 12 | 6 | 5 | 9 |

1. You counted 23 tulips in an 800 m2 area, what is the population density?
2. The table below lists the contents of two aquariums, A and B, both with a capacity of 50 L. Find the relative abundance of each species.

|  |  |
| --- | --- |
| **Aquarium A** | **Aquarium B** |
| 37 goldfish | 35 goldfish |
| 2 striped fish | 30 striped fish |
| 5 snails | 31 snails |
| 3 green algae | 45 green algae |
| 0 fern | 32 ferns |

Find the relative abundance for each species.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Goldfish | Striped fish | Snails | Green algae | Ferns |
| Aquarium A |  |  |  |  |  |
| Aquarium B |  |  |  |  |  |

Explain which aquarium has a greater biodiversity.

1. Identify the type of interaction between the living organisms in each of the following situations. (competition, predation, parasitism, mutualism and commensalism)

|  |  |
| --- | --- |
| Bees pollinate flowers |  |
| A bird finds and lives in an old empty nest |  |
| A maggot lays eggs in a wasp |  |
| Crows eat the remains of an animal left by a wolf |  |
| Two gorillas are fighting over a mate |  |
| Photosynthesis respiration processes |  |
| A clown fish’s waste provides food for the sea anemone, while the sea anemone provides shelter and protection to the clown fish |  |
| Two wolves fighting over territory |  |

1. Looking at the diagram below, state whether the arrow is pointing to the prey or the predator and explain your answer.

****

1. State the biome being described in each statement.

|  |  |
| --- | --- |
| Lack of clouds causes high temperature variations |  |
| Cold all year long |  |
| Temperature and light varies on depth |  |
| Not enough moisture for trees, but enough not to be a desert |  |
| Current flows in 1 direction |  |
| Has permafrost |  |
| Rains all year long and very warm temperatures |  |
| Contains the benthos |  |
| Produces a large amount of the world’s oxygen |  |
| Has acidic, nutrient poor soil |  |
| Became towns and cities |  |
| Type of wetland where trees can grow |  |
| Type of biome that has saturated soil |  |
| The largest ecosystem |  |
| Where fresh and marine water mix |  |
| Has the ability to survive drought and fire |  |
| Made from corals |  |
| Sensitive to fire, insects and disease |  |
| Defined by altitude |  |