



# UNIT TEST...Tomorrow!

 Review #1 - Unit 1.pdf

 Review Crossword - Unit 1.pdf

 Review Solutions.pdf

$$\text{Population} = \text{Pop. Density} \times \text{Area}$$

Species / area

$$\text{Population} = \frac{I_F \times T_L}{M}$$

$$A = P(1+r)^n$$

9. A population of 100 frogs increases at an annual rate of 22%. How many frogs will there be in 5 years?

$$A = 100(1 + 0.22)^5$$
$$A = 270 \text{ frogs}$$

8. Schushville is an island of 5000 square miles off the coast of Northville. There are currently 250,000 inhabitants of the island. Last year, there were 12,000 new children born and 10,000 people were recorded as deceased. It is believed that the island could support a population as dense as 150 people/square mile.
- What is the current population density and what do you expect will happen to the density as time goes on?
  - What was last year's population?
  - If Schushville's population growth rate is 0.8065%, how many years will it take for its population to double?

a) 
$$\frac{250000 \text{ people}}{5000 \text{ mi}^2} = 50 \text{ people/mi}^2$$

b) 
$$(248000) + 2000 = 250000$$

c) 
$$\text{Rule of 72} = \frac{72}{\text{Rate}} \%$$

$$= \frac{72}{0.8065}$$

$$= \boxed{89 \text{ years}}$$

10. Study the graph below.

- a) What type of growth is shown in the graph?
- b) Indicate on the graph where exponential growth occurs.
- c) What is the rabbit population's carrying capacity?
- d) What factors prevent populations from growing at their biotic potential?
- e) As the graph levels off, what is happening to the rabbit population?

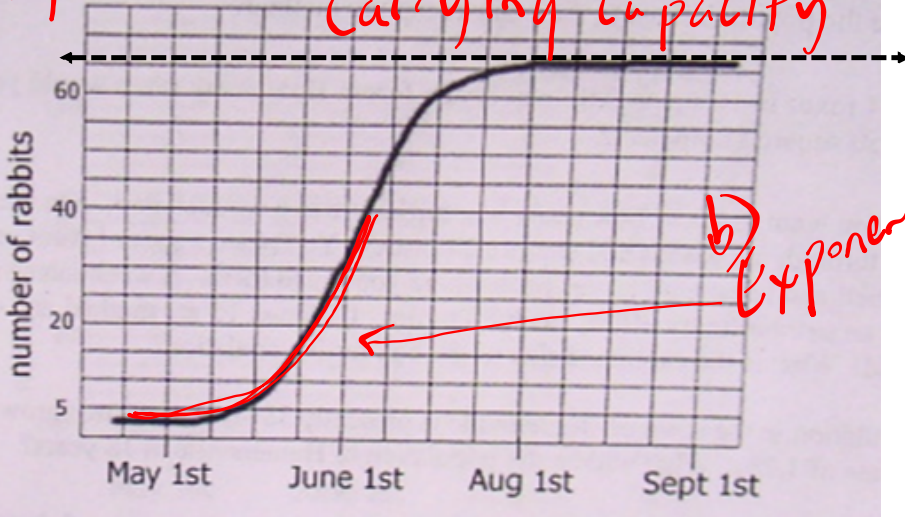
Logistic (S)

65 rabbits limited resources

Stays the same

Carrying capacity

b) Exponential (S)

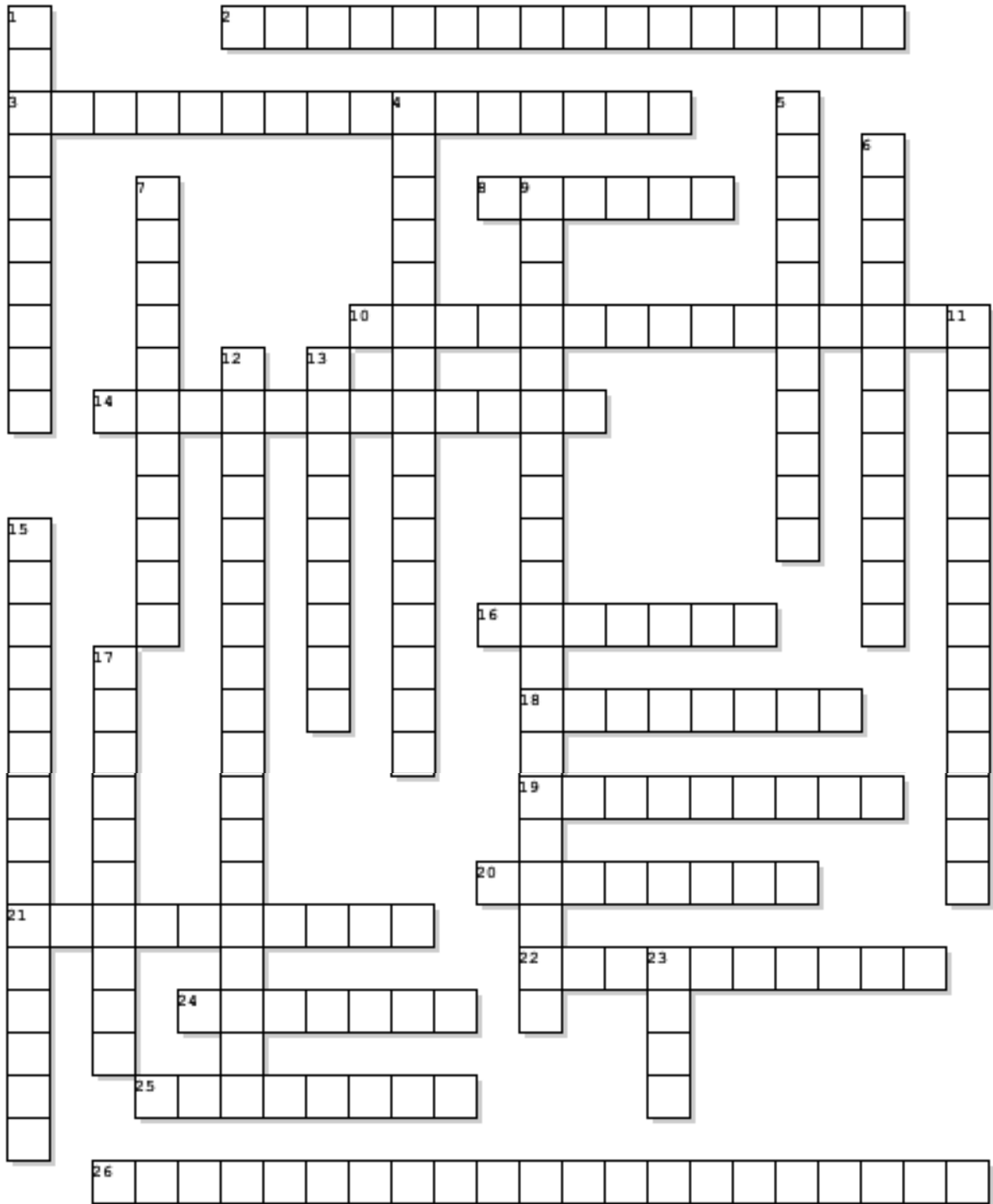


Intro to Environmental Science 120

Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Review - Test #1



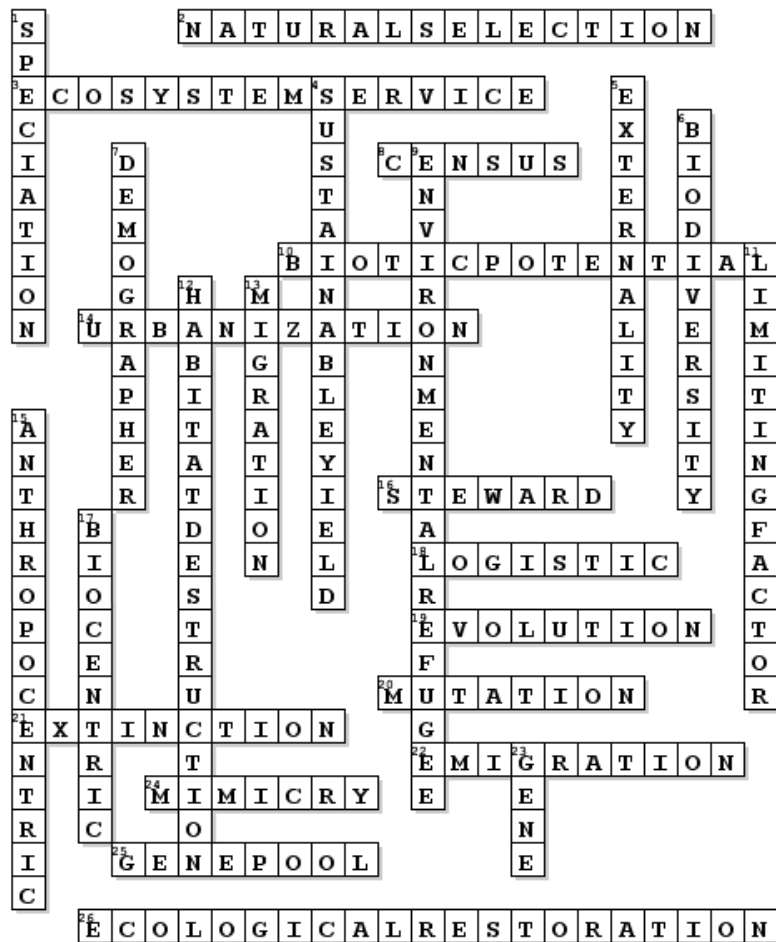
**Across**

- 2 best adapted organisms survive and reproduce
- 3 protective from UV radiation
- 8 count of a population
- 10 maximum rate at which a population can increase
- 14 process in which an increasing proportion of a population lives in cities or suburbs
- 16 the Lorax was this for the trees
- 18 S or \_\_\_\_\_ curve
- 19 driving force of adaptation to environmental change
- 20 can be caused by external environmental agents
- 21 elimination of a species from existence
- 22 act of leaving
- 24 structural adaptation
- 25 sum of all genes in a population
- 26 the process of assisting the restoration of an ecosystem

**Down**

- 1 formation of two or more species from one
- 4 the taking of a biological resource that does not exceed the capacity of the resource to reproduce and replace itself
- 5 does not monetarily affect the producer of a good, but influences the standard of living of society
- 6 the variety of living things in the world
- 7 person who studies populations
- 9 person forced to leave his or her home because of droughts, floods, etc.
- 11 water
- 12 caused by urban sprawl, agricultural practices, etc.
- 13 behavioral adaptation
- 15 view that humans are the center of the universe
- 17 view that life is the center of the universe
- 23 segment of DNA

Review - Test #1



## Attachments

---

Review - Unit 1.pdf

Review Crossword - Unit 1.pdf

Review Solutions.pdf