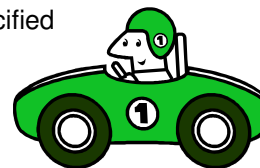


Name _____

Measuring Biodiversity Among Cars

As we discussed in class, biodiversity is the number and variety of organisms found within a specified geographic region. Today you will be examining “biodiversity” of cars found in the defined geographic region of the staff parking lot and the student parking lot. You will be in a group of 3 to 4 and your goal will be to survey both parking lots and count how many different makes (Toyota, Hyundai, Volkswagen, etc....) of cars you find.



Data

Staff Parking Lot			Student Parking Lot		
Car Make	# of Cars	% Composition	Car Make	# of Cars	% Composition
Mazda	4		Toyota	7	
Infinity	1		Hummer	1	
Toyota	9		Subaru	1	
Honda	5		Honda	12	
Nissan	2		Jeep	7	
Hyundai	1		Ford	4	
BMW	1		Mercury	1	
Volvo	1		Nissan	3	
Jeep	4		BMW	2	
Lexus	1		Lexus	2	
Chevrolet	1		Mercedes	2	
Mercedes	1		Land Rover	1	
Subaru	7		Scion	2	
Ford	3		Volvo	2	
Volkswagen	2		Chevrolet	1	
Saturn	1		Kia	1	
Kia	1		Mazda	1	
Total # of cars			Total # of cars		

Data Analysis

For each of the parking lots, calculate the percent composition of makes of cars within each lot using the equation below:

$$\text{Percent composition of the cars} = \frac{\text{Number of specific make of car} \times 100}{\text{Total number of cars}}$$

Conclusion (If you need more room to write your answers, use the back of this sheet or a separate sheet of paper)

1. What factor would indicate a high diversity with your data set?
2. Biodiversity can indicate the health of an ecosystem. Based on your results, which region (parking lot) is healthier? Use your data to explain your answer.
3. Do you think the diversity of the cars between the student lot and the teacher lot would change if the factor examined was the color of car instead of the make? Explain with examples.
4. How do you think the amount of diversity you found in the school's parking lot compare to a parking lot found in downtown Portland? Explain your answer.
5. Now imagine that the cars were living organisms, describe what factors would affect the diversity among the organisms between the regions?