Name:_____

Gear Ratios

Instructions:

Choose two gears that you want to use. Place the gears in the gear board. Make sure the arrows are arranged so they are facing each other. Place the handle on the drive gear of your choice. As you turn the gear count the number of revolutions made by each gear. Record this as a ratio in the table below. Repeat until all the boxes are filled.

		Driven Gear (output)		
		Yellow Gear	Red Gear	Green Gear
Drive Gear (input)	Yellow Gear			
	Red Gear			
	Green Gear			

Questions:

1. Which gear set had a higher gear ratio? Why do you think that is?

_____

_____

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2. How did the number of teeth on the gears affect the gear ratio and the rotational movement of the driven gears?

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3. Can you think of any real-world applications where gear ratios are important? Explain.

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4. How can gear ratios be used to control speed and torque in mechanical systems? (grade 6, grade 8)

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