

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

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

## First Build – Gear Trains!

Per: \_\_\_\_\_

Directions: Using the pictures below and the VEX pieces we talked about at the beginning of class, build Gear Train A and Gear Train B and answer the questions that follow.



**Gear Train A**



**Gear Train A**



**Gear Train B**

1. What is the relationship of the input compared to the output in both gear trains?

\_\_\_\_\_

2. Identify the drive and the driven gears for Gear Train B.

Drive: \_\_\_\_\_

Driven Gear: \_\_\_\_\_

3. In Gear Train A, is the speed increased, decreased, or constant?

\_\_\_\_\_

4. In Gear Train B, is the speed increased, decreased, or constant?

\_\_\_\_\_

5. What is the gear ratio of Gear Train A? Remember, count the teeth!

\_\_\_\_\_ : \_\_\_\_\_

6. What is the gear ratio of Gear Train B? Remember, count the teeth!

\_\_\_\_\_ : \_\_\_\_\_

7. Is the flow of power reversible? \_\_\_\_\_

8. Do the gears move in the same or opposite direction?

\_\_\_\_\_

9. List an example of where this mechanism might be used:

\_\_\_\_\_

