

**Animation Worksheet: PGS 4, Rev OD**

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

1. A simple planetary gear set consists of a sun gear, a planet carrier, and a \_\_\_\_\_ gear.
2. In a planetary gear set, any one of the three components can be used as the \_\_\_\_\_ or driving component.
3. The component that is kept from rotating in the gear set is called the reaction or \_\_\_\_\_ component.
4. In the specific example shown in the video, the ring gear is used as the input, and the sun gear is used as the \_\_\_\_\_.
5. The component held stationary in this specific animation is the \_\_\_\_\_.
6. The gear ratio is calculated by dividing the number of teeth on the sun gear by the number of teeth on the \_\_\_\_\_ gear.
7. The number of teeth on the sun gear is 15, and the number of teeth on the ring gear is 45, which results in a gear ratio of \_\_\_\_\_ to 1.
8. If the carrier is held and the ring gear rotates in a clockwise direction, the sun gear will rotate in the \_\_\_\_\_ direction.
9. For every one clockwise rotation of the ring gear, the sun gear will rotate \_\_\_\_\_ times in the opposite direction.
10. This specific configuration achieves a reverse overdrive, which increases the output speed of the sun gear while \_\_\_\_\_ the direction of rotation.