

Animation Worksheet: Power Flow Ravigneaux 4 Speed

Name: _____ **Date:** _____

1. A Ravigneaux planetary gear set provides four forward gear ratios and reverse using clutches and a _____.
2. When shifted into first gear, power enters through the _____ to the planet carrier.
3. In first gear, the _____ is holding, which allows the planets to rotate around the sun gear.
4. The typical reduction ratio when the transmission is in first gear is about _____.
5. When the transmission shifts to second gear, the power _____.
6. In second gear, the combined motion of the carrier and small sun drives the planets, transmitting torque to the ring gear output at a reduction ratio of typically about _____.
7. With a third gear shift, both the carrier and _____ rotate at input speed, which locks the planets.
8. Because there is no relative rotation in third gear, it results in a direct _____ drive to the ring gear output.
9. In fourth gear, the planets multiply speed, overdriving the ring gear output at a ratio of typically about _____.
10. When shifting to reverse, the low-reverse band holds the _____ stationary.