

Animation Worksheet: Power Flow Overdrive Four Speed #1

Name: _____ **Date:** _____

1. The transmission shown in the video is a four-speed automatic that uses planetary gearsets, clutches, and a _____ to control power flow.
2. In First gear, the _____ Clutch is applied to drive the input ring gear.
3. During First gear in the 'Drive' range, the vehicle accelerates forward while the lower _____ clutch holds the reaction carrier stationary.
4. When the transmission shifts into Second gear, the Forward Clutch stays applied, and the _____ Band is applied to hold the reaction sun gear stationary.
5. In Third gear, the transmission achieves a direct drive ratio of 1:1 by applying both the Forward Clutch and the _____ Clutch at the same time.
6. When both clutches are applied in Third gear, the entire planetary gear set is locked together, meaning the input speed is _____ to the output speed.
7. To shift into Fourth gear (Overdrive), the Forward Clutch releases while the 3-4 Clutch remains applied and the _____ Band is reapplied.
8. In Fourth gear, the output shaft turns faster than the input shaft, which is a characteristic of an _____ gear ratio.
9. To achieve Reverse gear, the _____ Input Clutch and the Low-Reverse Clutch are applied simultaneously.
10. According to ASE standards, if a holding band or clutch _____ during acceleration, the engine RPM will flare up without a matching increase in vehicle speed.