

Animation Worksheet: Shift Valve Forces

Name: _____ Date: _____

1. Shift valve forces include governor pressure, throttle valve pressure, and _____ tension.
2. In the specific example shown in the video, the spring tension exerts a force of _____ pounds.
3. To calculate the area of the governor plug in square inches, you must multiply the radius squared by _____ (or 3.1416).
4. The calculated surface area of the governor plug is _____ square inches.
5. The shift valve has a diameter of 0.5 inches, which results in a shift valve area of _____ square inches.
6. In the initial example scenario, the governor pressure is measured at _____ PSI, while the throttle valve pressure is at 5 PSI.
7. Under light throttle with 5 PSI, the exerted throttle valve (TV) pressure translates to a force of _____ pounds.
8. An upshift occurs when the _____ force becomes greater than the combined forces of the throttle valve and spring.
9. As the vehicle speed increases, the governor pressure rises due to higher engine _____, which enhances fluid dynamics.
10. Monitoring both the governor pressure and opposing forces is crucial for understanding when and how transmission _____ occur.