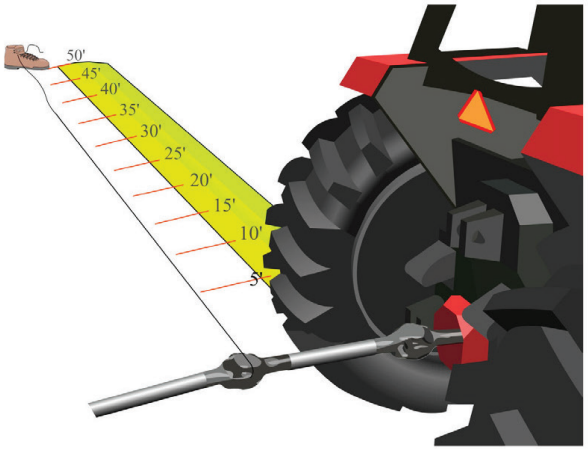
Name: _____

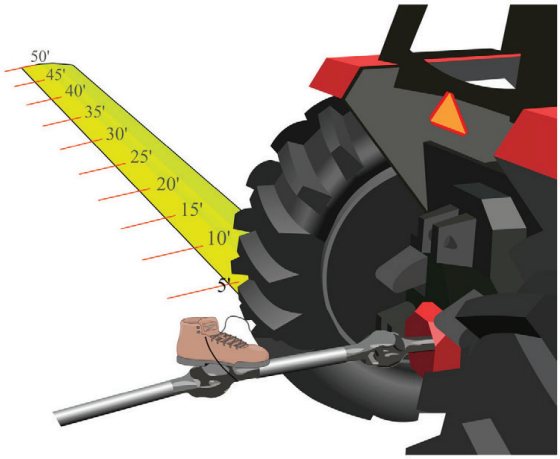
ACTIVITY WORKSHEET **5.3**

PTO Driveline Speed

Directions: Determine how long (seconds) it would take for the PTO driveline to wrap-up 50 feet of string.

Given Information: **The PTO Driveline is operating at 1000 RPM.**
The shaft has 20 splines and a diameter of 1 3/4 inches.
The string is 50 feet in length.





1. Determine circumference (inches) of the PTO shaft.
   Hint: Circumference = 3.14 times diameter

   Circumference = 3.14 X _____= _____ inches

2. Convert Revolutions Per Minute (RPM) to Revolutions Per Second.
   Hint: Revolutions Per Second = RPM divided by 60 (seconds in a minute)

   Revolutions Per Second = _____RPM / 60 = _____ RPS

3. Convert Revolutions Per Second to Feet Per Second.
   Hint: Feet Per Second = (Circumference times Revolutions Per Second) divided by 12 (inches in one foot)

   Feet Per Second = (_____inches X _____ RPS) / 12 = _____ FPS

4. Determine time (seconds) required to wrap-up 50 feet of string.
   Hint: Time = Feet of String divided by Feet Per Second

   Time = 50 Feet of String / _____ FPS = _____ seconds

Extra Credit:
How long would it take to wrap a 6 inch shoe lace at the same speed?