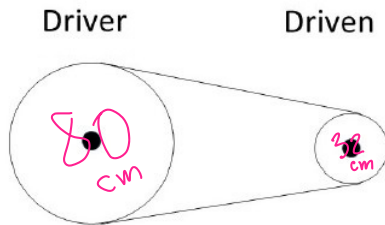


Name: Lucy Zielin

For the system of sprockets pictured, when driver sprocket = 80 cm, driven sprocket = 32 cm, and the input speed is 50 rpm, what is the output speed (precision of 0.01)?



$$\frac{W_1}{W_2} = \frac{d_2}{d_1}$$

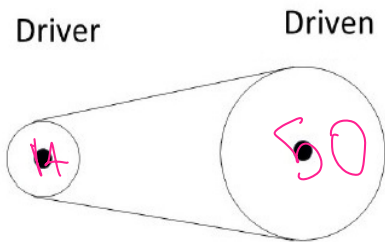
$$\frac{d_2}{d_1} = \frac{32}{80}$$

$$\frac{32}{80} = \frac{50}{W_2}$$

$$\frac{W_1}{W_2} = \frac{50}{x}$$

$$W_2 = \frac{(80 \cdot 50)}{32} = 125 \text{ rpm}$$

For the system of sprockets pictured, when driver sprocket = 14 cm, driven sprocket = 50 cm, and the input speed is 68 rpm, what is the output speed (precision of 0.01)?



$$\frac{W_1}{W_2} = \frac{d_2}{d_1}$$

$$\frac{68}{W_2} = \frac{50}{14}$$

$$W_2 = \frac{(68 \cdot 14)}{50} = 19.04 \text{ rpm}$$

Write ONLY answers below this line \_\_\_\_\_

SPRSet67

a: 125.00

b: 19.04