

The answer of the question7 at P42

a

we can find:

$$\begin{aligned} r^3 &= \frac{d * P}{\pi * S} \\ &= \frac{7 * 300}{\pi * 10000} \\ &= 0.21\pi \end{aligned}$$

So we can find:

$$r = \sqrt[3]{0.21\pi} \approx 0.87(m)$$

b

inputs

my inputs will be d,P,and S,which means that the length of the crank arm in inches, the weight placed on the pedal in lbs as well as the stress in $\frac{lbs}{in^2}$

output

my output will be r,which means that the radius of the cylindrical rod in inches.

algorithm

I will firstly calculate the value of r^3 according to the formula and then calculate the value of r