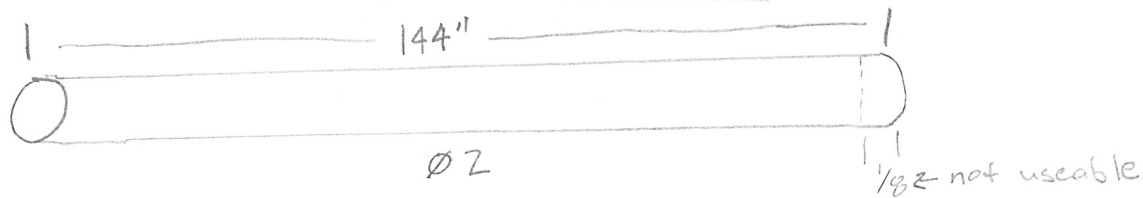


## IET 418 Project

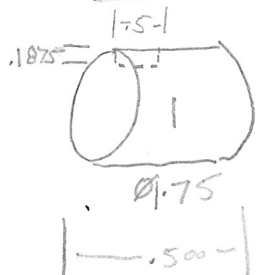


$$143\frac{7}{8} \div 2.375 = 60 \text{ parts per stock}$$

↑  
useable  
stock

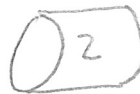
↑  
per  
part

Finished Part



$$V_1 = [\pi r^2 \times .5] - [.5 \times .1875 \times .5]$$

$$V_1 = 1.1561 \text{ in.}^3$$

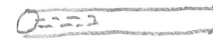


Ø1.00

|.375|

$$V_2 = \pi (.5^2) \times .375$$

$$V_2 = .2945$$



Ø.500

|-1.500-|

hole Ø.25  
.750" deep

$$V_3 = [\pi (.25^2) \times 1.5] - [\pi (.125^2) \times .75]$$

$$V_3 = .2563$$

$$V_1 + V_2 + V_3 =$$

$$1.7069 \text{ in.}^3 \text{ per finished part}$$

Volume of Stock

$$V_{\text{stock}} = \pi (1^2) \times 144$$

$$V_{\text{stock}} = 452.39 \text{ in.}^3$$