

ISBN: 0581; Pg 695; SECTION #4; Q 38

When the last cylinder is added to the original FIVE, THE MEDIAN DIA. VALUE

OF THE NEW SET OF SIX WILL BE  $= \frac{9}{10} = \frac{18}{20}$

~~FOR~~  
ORIGINAL FIVE  $\frac{1}{2}, \frac{3}{4}, \frac{4}{5}, 1 \& \frac{5}{4}$   
→  $\frac{10}{20}, \frac{15}{20}, \frac{16}{20}, \frac{20}{20}, \frac{25}{20}$

CYLINDER HE NEEDS, WHEN ADDED TO THIS SET, WILL CREATE A MEDIAN VALUE OF  $\frac{9}{10}$  inch  
OR  $\frac{18}{20}$  inch

$\frac{10}{20}, \frac{15}{20}, \frac{16}{20}, \frac{20}{20}, \frac{25}{20}, y$

↑  
MEDIAN  
 $= \frac{18}{20}$

$$\begin{aligned} \text{RANGE OF FIVE} &= \frac{25}{20} - \frac{10}{20} \\ &= \frac{15}{20} \\ &= \left(\frac{3}{4}\right) \text{ inch} \end{aligned}$$

IF THE SIXTH CYLINDER WILL EXCEED THE VALUE OF THE RANGE OF CURRENT FIVE BY  $\frac{1}{4}$  inch to  $\frac{1}{2}$  inch.

$$\therefore y = \left(\frac{3}{4} + \frac{1}{4}\right) \text{ inch to } \left(\frac{3}{4} + \frac{1}{2}\right) \text{ inch}$$

$$\frac{4}{4} \text{ in to } \frac{5}{4} \text{ in}$$

$$1 \text{ inch to } 1\frac{1}{4} \text{ inch}$$

ANSWER: YOU CAN ENTER ANY NUMBER BETWEEN 1.25  
i.e., 1.00, 1.01, 1.02, 1.03, etc. upto 1.24, 1.25,