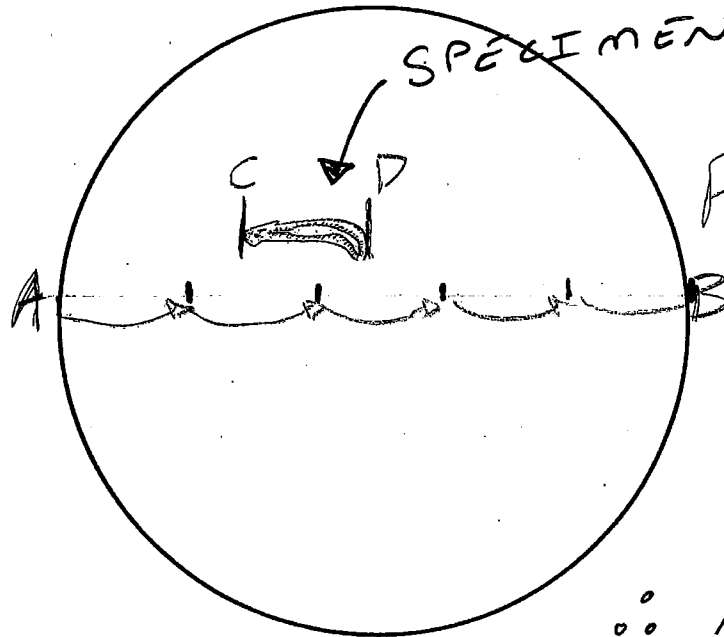


# KEY

## MICROSCOPY CALCULATIONS

- Use the sketch and other relevant information stated below to complete the following calculations.

\*Specimen was viewed and sketched on medium power - 100 X - (FOV = 1800  $\mu$ m)



FOV = 1.8 mm  
 1800  $\mu$ m  
 CONVERT  
 TO  
 MICROMETER

$$\therefore A \rightarrow B = 1800 \mu\text{m}$$

Show calculations for each step

1. Approximately how many of these specimens would fit across the middle of the field of view?

4.9 FIT ACROSS

\* MEASURE THE SKETCHED SPECIMEN FROM C AND D THEN SEE HOW MANY TIMES THAT LENGTH FITS ACROSS DIAMETER

2. Calculate the approximate length of this specimen. Show your work

$$\begin{aligned} \text{EST SIZE OF SPECIMEN} &= \frac{\text{F.O.VIEW}}{\# \text{ FIT ACROSS}} = \frac{1800 \mu\text{m}}{4.9 \text{ FIT ACROSS}} \\ &= 367.4 \mu\text{m} \end{aligned}$$

(How BIG IS THIS ORGANISM IN REAL LIFE)  $\rightarrow$

3. What is the Drawing Magnification of this specimen on this sheet of paper?  
Show your work.

- \* DRAWING  
MAGNIFICATION

$$= \frac{\text{DRAWING SIZE}}{\text{EST SIZE OF ACTUAL SPECIMEN}}$$

\* USE A RULER TO MEASURE HOW BIG THE SPECIMEN WAS DRAWN ON THE FRONT OF SHEET

WHAT THIS MEANS IS HOW MANY TIMES LARGER IS THE SPECIMEN SKETCHED/ DRAWN ON PAPER COMPARED TO ITS ACTUAL SIZE IN REAL LIFE.

$$\frac{1.7 \text{ cm} \xrightarrow{\times 10} 17 \text{ mm} \xrightarrow{\times 1000} 17,000 \mu\text{m}}{367.4 \mu\text{m}}$$

$$1 \text{ cm} \xrightarrow{\times 10} 10 \text{ mm} \xrightarrow{\times 1000} 10,000 \mu\text{m}$$

$$\frac{17,000 \mu\text{m}}{10,000 \mu\text{m}} = 46.3$$