Name _____Date_____Period_____

Bio Skills - Microscope Calculations

Show work and place answer in box with correct units!

1. Convert 3 millimeters to microns

$3\ \text{mm} \times \frac{1000\ \mu\text{m}}{1\ \text{mm}}$

3000 µm

2. Convert 1500 micrometers to millimeters

3. Convert 0.5 millimeters to µ.

$0.5\ \text{mm} \times \frac{1000\ \mu\text{m}}{1\ \text{mm}}$

500 µm

4. What is the length in millimeters of a microorganism that is 333 microns long?

5. What is the total magnification of the lens system if the high power is marked 25X and the eyepiece is marked 10X?

25 x 10 = 250

250x

6. If the total magnification is 450X and the eyepiece is marked 10X, what is the magnification of the high power lens?

7. What is the total magnification of the lens system if the low power is marked 10X and the eyepiece is marked 15X?

10 x 15 = 150

150x

8. If the total magnification is 300X and the eyepiece is marked 10X, what is the magnification of the other lens?

9. A microscope has a low power field of view of 3000 microns at 100X magnification. What is the field of view at 400X magnification?

400x/100x = 4
3000µm/4 = 750 µm

750 µm

10. A microscope has a high power field of view of 50 microns at 400X magnification. What is the field of view at 100X magnification?