

Name/Period: _____

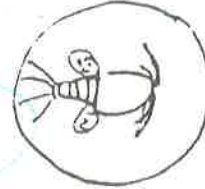
Date: _____

ESTIMATION OF SIZE

1. An object occupies $\frac{3}{4}$ of the low power field of view, which is 2.0 mm in diameter. The size of the object is?

$(\frac{3}{4})(2.0 \text{ mm}) = 1.5 \text{ mm}$

$(\text{proportion of fov})(\text{diameter of field}) = \text{size of object}$



Cyclops

2. A specimen under a microscope occupies $\frac{1}{2}$ of the field of view. If the diameter of the field of view is 700 μm , what size is the specimen?

$(\frac{1}{2})(700 \mu\text{m}) = 350 \mu\text{m}$



Paramecium

3. A microscope has a field of view with a diameter of 2000 μm under low power. If a cell takes up 0.25 of the field of view, how long is the cell?

$(0.25)(2000 \mu\text{m}) = 500 \mu\text{m}$



Onion Cells

4. An object's length is $\frac{3}{4}$ of the diameter of the low power field of view, which is 2.0 mm in diameter. The size of the object is?

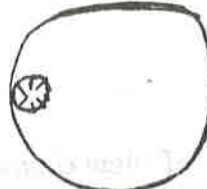
$(\frac{3}{4})(2.0 \text{ mm}) = 1.5 \text{ mm}$



Geranium Epidermal Cell

5. An object, which appears circular occupies $\frac{1}{8}$ of the 500x field of view. The 100x field of view is 960 μm . what is the diameter of the object?

$(100x)(960 \mu\text{m}) = (500x) ?$
 $? = 192 \mu\text{m} (\frac{1}{8})$
 $24 \mu\text{m}$



Unidentified Object

6. An object occupies $\frac{1}{4}$ of the low power field of view, which is 4.0 mm in diameter. The size of the object is?

$(\frac{1}{4})(4.0 \text{ mm}) = 1.0 \text{ mm}$



Letter "e"