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## Microscopic Measurements

Name \_\_\_\_\_  
Date \_\_\_\_\_  
Biology 230

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**Purpose** \_\_\_\_\_

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### Microscope Calibration:

At low power \_\_\_\_\_ ×    At high-dry power \_\_\_\_\_ ×    At oil immersion \_\_\_\_\_ ×  
1 ocular division = \_\_\_\_\_ μm    1 ocular division = \_\_\_\_\_ μm    1 ocular division = \_\_\_\_\_ μm

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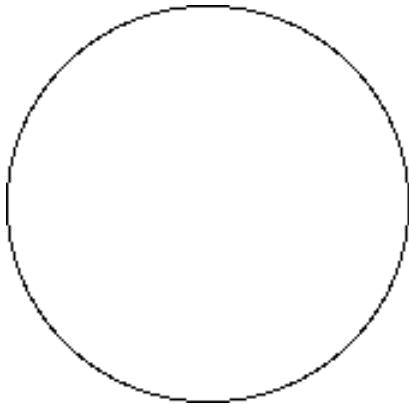
### Observations:

#### Human cheek cells

Sketch a few cells:

Total magnification: \_\_\_\_\_ ×

Diameter of a typical cell \_\_\_\_\_ μm



#### *Elodea*

Sketch a few cells:

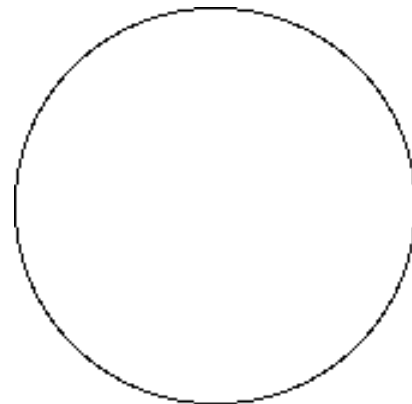
Total magnification: \_\_\_\_\_ ×

Length of a typical cell \_\_\_\_\_ μm

Width of a typical cell \_\_\_\_\_ μm

Length of a chloroplast \_\_\_\_\_ μ

Width of a chloroplast \_\_\_\_\_ μ

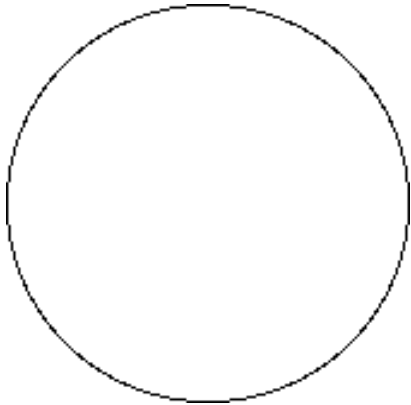


**Sheep erythrocyte**

Sketch a few cells:

Total magnification: \_\_\_\_\_ ×

Diameter of a typical cell \_\_\_\_\_ μm

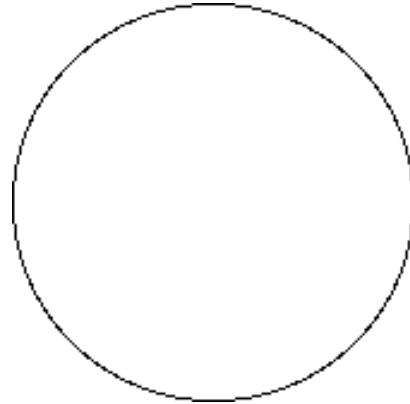


***Saccharomyces***

Sketch a few cells:

Total magnification: \_\_\_\_\_ ×

Diameter of a typical cell \_\_\_\_\_ μm



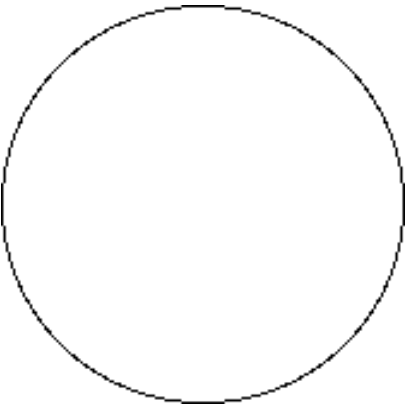
***Staphylococcus aureus***

Sketch a few cells:

Total magnification: \_\_\_\_\_ ×

Length of a typical cell \_\_\_\_\_ μm

Width of a typical cell \_\_\_\_\_ μm



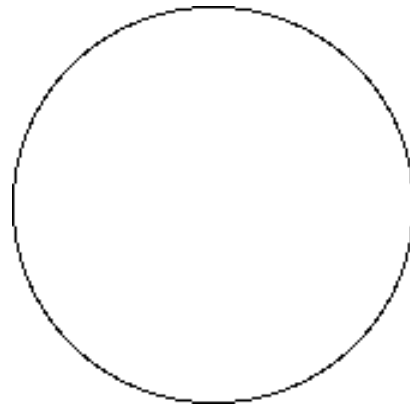
***Escherichia coli***

Sketch a few cells:

Total magnification: \_\_\_\_\_ ×

Length of a typical cell \_\_\_\_\_ μm

Width of a typical cell \_\_\_\_\_ μm



**Questions:**

- 1 How many times greater magnified is the chloroplast in Figure 3-6 than the chloroplast you observed? \_\_\_\_\_
2. The largest cell you observed was \_\_\_\_\_;
3. The smallest cell you observed was: \_\_\_\_\_
4. The largest cell is \_\_\_\_\_ times bigger than the smallest cell.
5. Which cell(s) observed is (are) prokaryotic?