Introduction to Cell Biology
Section 1

Lab Quiz #4

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Name:

Microscopy

5 1. What are the three key elements of a microscope that are needed in order to produce an image? (5 points)

a. specimen

b. source of illumination

c. set of lenses

5 2. The process by which two or more waves combine to cancel/reinforce each other is called interference, and the pattern of additive/canceling exhibited by the waves is called diffraction. (5 points)

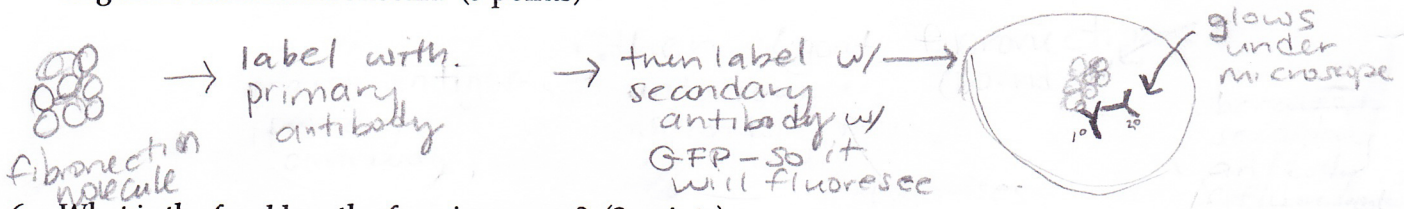
0 3. In what type of microscopy are the cells to be examined often killed first? (3 points)

phase-contrast ~~w~~ microscopy and electron microscopy

4 4. In order to visualize the actin filaments in a cell, what type of microscopy would you most likely use? Briefly justify your answer. (5 points)

Fluorescence- tag the actin filaments w/ an ~~GFP~~ antibody

5 5. Draw a small diagram of what indirect immunofluorescence binding looks like. Assume target molecule is fibronectin. (5 points)



2 6. What is the focal length of a microscope? (2 points)

The focal length of a microscope is the distance between the midline of an image to two points on it →