**PreAP Physics – Geometric Optics PhET Lab**

Today, you will use Geometric Optics PhET Lab to investigate the properties of converging lenses and verify the lens equation.

**Part 1 – Beginning Observations**

1) Open the Geometric Optics PhET simulation. What can you change about the simulation?

2) The little “x” is the focal point. What are the three places you can put the pencil and what are the characteristics of the image? \*\*hint you may need to click “virtual image”

|  |  |  |
| --- | --- | --- |
| Placement – draw a picture | Characteristics of Image | Real/virtual |
| 1 -  |  |  |
| 2 -  |  |  |
| 3 -  |  |  |

**Part 2 – Verify the Lens Equation**

Now, you will verify the lens equation by keeping the characteristics of the lens constant and changing the image distance. Write your procedure below, record your results, calculate the magnification, indicate if the image is real/virtual and write a brief conclusion. Below are the equations you may need.

  