**Lenses Simulation**

Open the Simulation at <https://simbucket.com/lensesandmirrors/>

Initial setup:

* Select Lens and the converging option
* Start object at 3f (3 x the focal length)

Questions:

1. Investigate the relationship between **object distance** and **image magnification.**

Write a statement the describes how the image magnification (size) changes as you move closer to the lens.

1. Investigate the relationship between **focus distance** and **object distance.**

Write a concluding statemen that describes the relationship.

1. Explain what happens to image when the object is placed between the focal point and lens.
2. Switch to a Diverging lens. Investigate the relationship between **object distance** and **image magnification.**

Write a statement the describes how the image magnification (size) changes as you move closer to the lens.

1. Which lens type can only result in virtual images?

6. Under what conditions will real images form?

7. Describe the image produced when an object is placed between f and 2f of a converging lens. (orientation, size, and real or virtual)

8. Describe the image when an object is placed at f on a diverging lens.