

## **HIP 09 (This is a practice problem; not graded)**

### **COMMENTS:**

- Problem 1 will be graded based off of the HIP rubric.
- (1) Two identical diverging lenses are separated by 6.0 cm. Each lens has a focal length of -12 cm. An object is placed 10 cm in front of the first lens.
- a. Use ray tracing to determine the locations of the final image and report from your diagram whether the final image is real or virtual, if it's upright or upside down, and approximate its magnification. Use a ruler and be as accurate as possible.
  - b. Mathematically find the location and magnification of the final image produced by this lens combination.