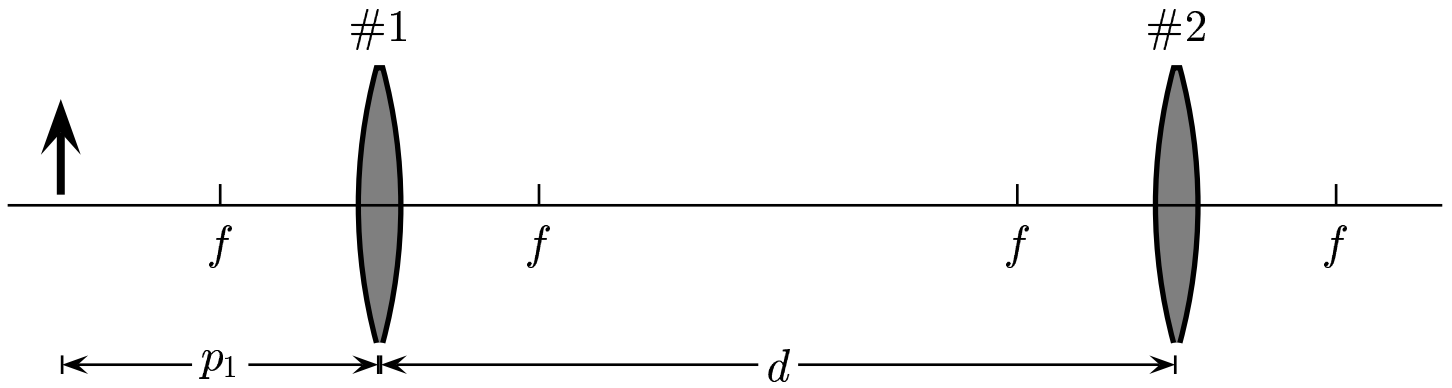


Given two identical lenses,  $f_1 = f_2 = f$ . The object is located at a distance  $p_1 = 2f$  from lens #1. The separation is  $d = 5f$ .



Based on the ray diagram determine the property of the image formed by the two lens system.

- A) The image is upright and real.
- B) The image is upright and virtual.
- C) The image is inverted and real.
- D) The image is inverted and virtual.

We indicate the situation qualitatively, and leave the construction of an accurate diagram to the reader. The image formed by lens #1 is inverted and real. It becomes the object of #2. The image formed by #2 is again real and inverted. Put all together, the final image is upright and real.

Answer **A**.

36.04-03 Two Lens Problem 2004-3-24