

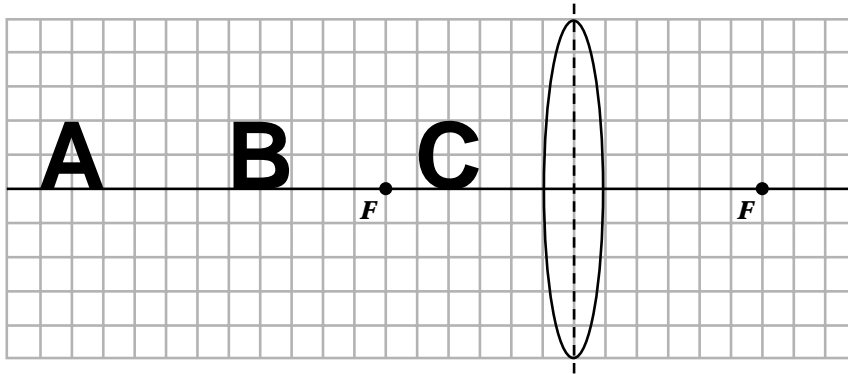
Section  
**15-2**

HOLT PHYSICS

# Diagram Skills

## *Thin Lenses*

1. A converging lens has a focal length of 3.00 cm. The letters *A*, *B*, and *C* are used as objects placed at distances of 8.00 cm, 5.00 cm, and 2.00 cm, respectively, from the lens.
  - a. Sketch ray diagrams to locate the image of *A*: Draw one ray from the top of the head parallel to the axis and another ray from the head through the focal point. Verify that the image is also in the ray that passes through the center of the lens.



- b. Is the image of *A* real? inverted? magnified?

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- c. Repeat questions a and b for the object at positions *B* and *C*.

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2. Calculate the image location for the object at *A*, *B*, and *C* in problem 1. Compare your results with your diagrams.

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