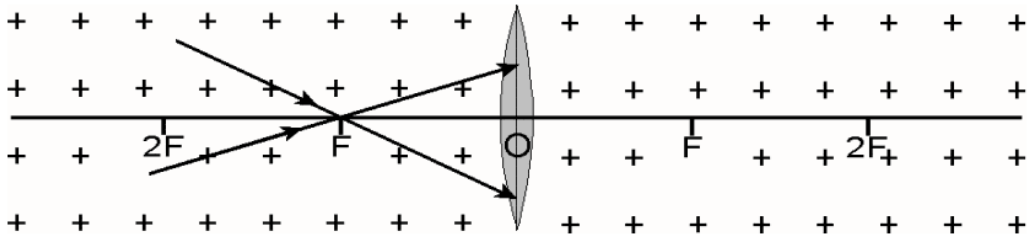
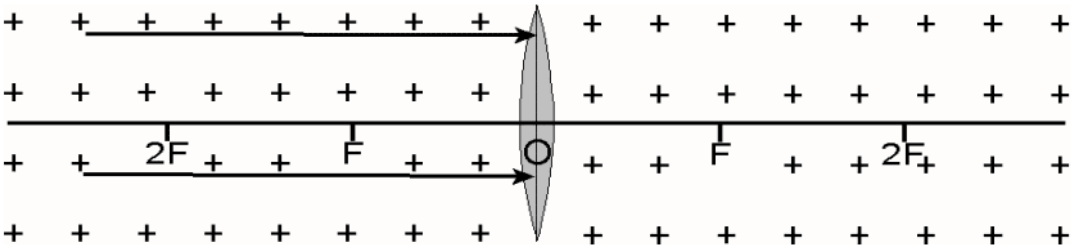
L14 Finding the Images of a Convex/Converging Lens

Complete the following:

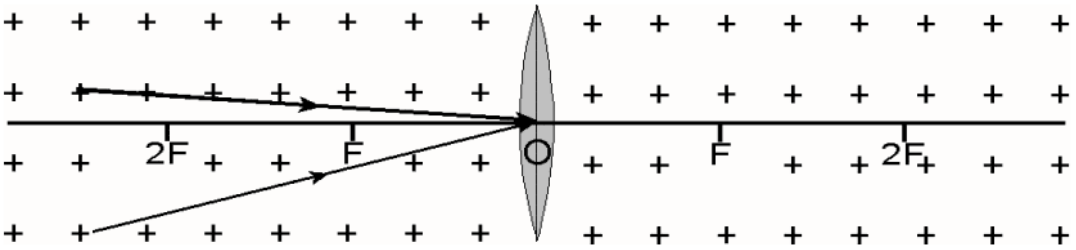
1) Any incident ray passing through the Focus will



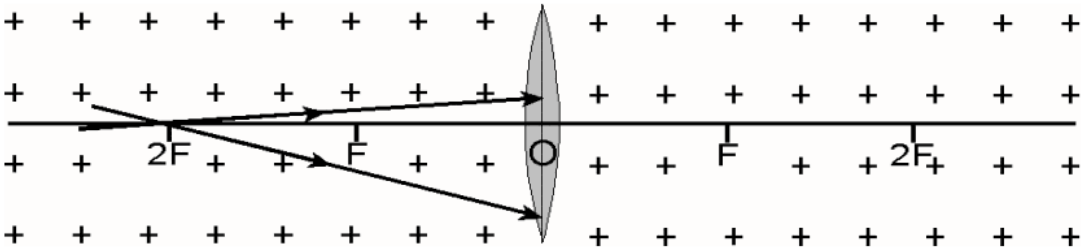
2) Any incident ray parallel to the principal axis will

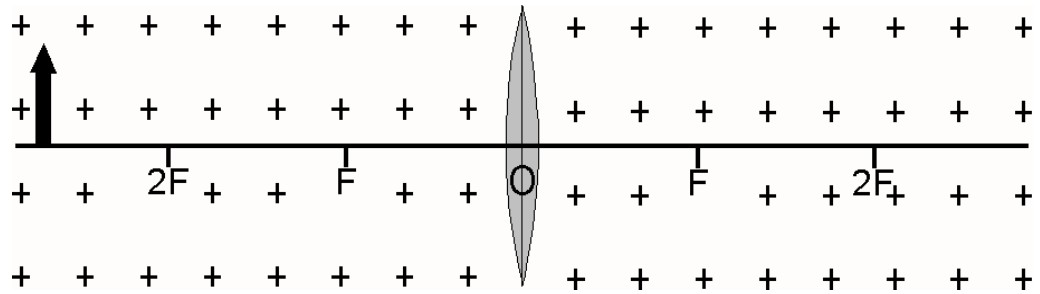
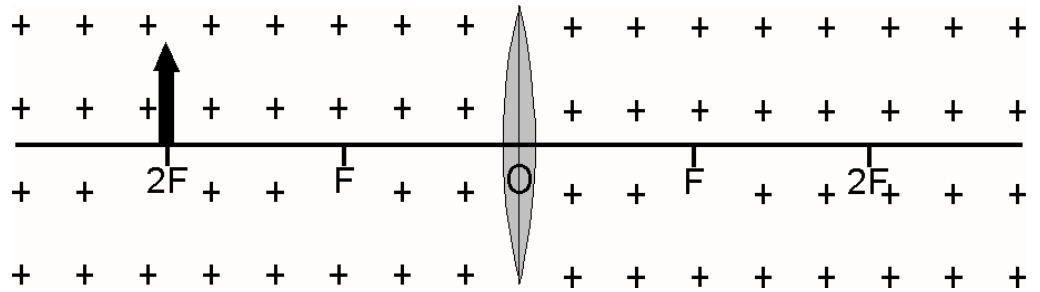
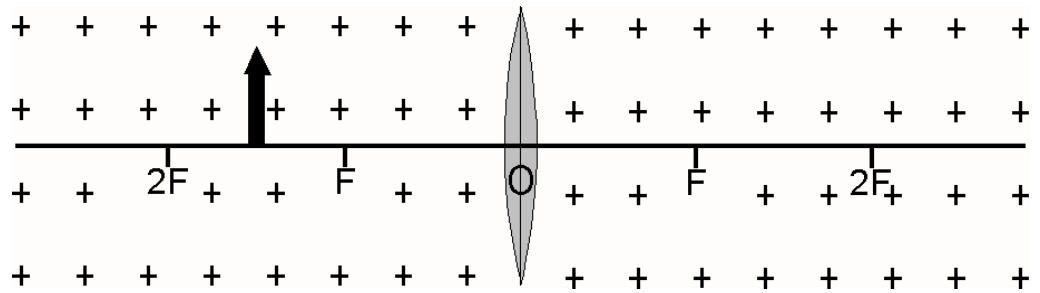
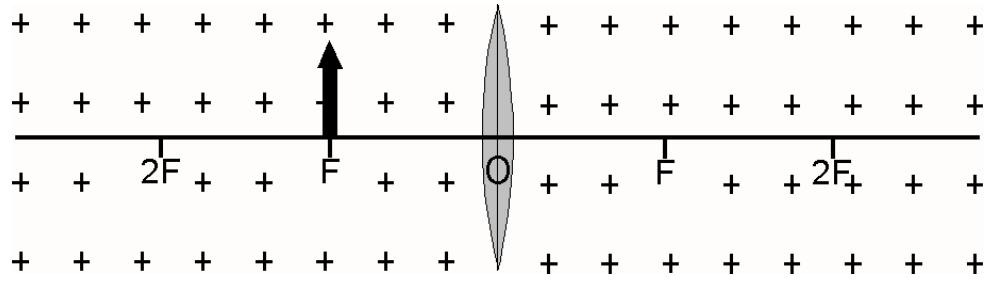
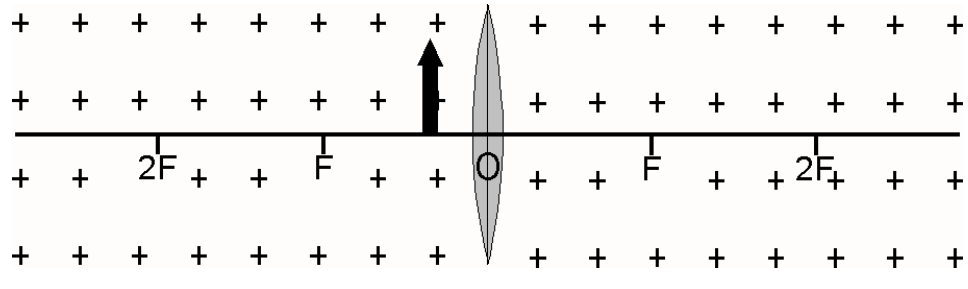


3) Any incident ray passing through the Optical Centre will



Any incident ray passing through 2F will



Object Location	Images Formed by Converging Lenses Ray Diagrams	LOST
Beyond 2F		**Location** **Orientation** **Size** **Type**
At 2F		**Location** **Orientation** **Size** **Type**
Between F and 2F		**Location** **Orientation** **Size** **Type**
At F		**Location** **Orientation** **Size** **Type**
Between F and O		**Location** **Orientation** **Size** **Type**

4) If the OBJECT IS MOVED far beyond twice the focal length (2F) of a CONVEX (CONVERGING) LENS, the image will move

5) If the OBJECT IS MOVED close toward the focus of a CONVEX (CONVERGING) LENS, the image will move

6) In order to produce a VIRTUAL IMAGE with a CONVEX (CONVERGING) LENS, the object must be placed

7) In order to produce a REAL IMAGE with a CONVEX (CONVERGING) LENS, the object must be placed

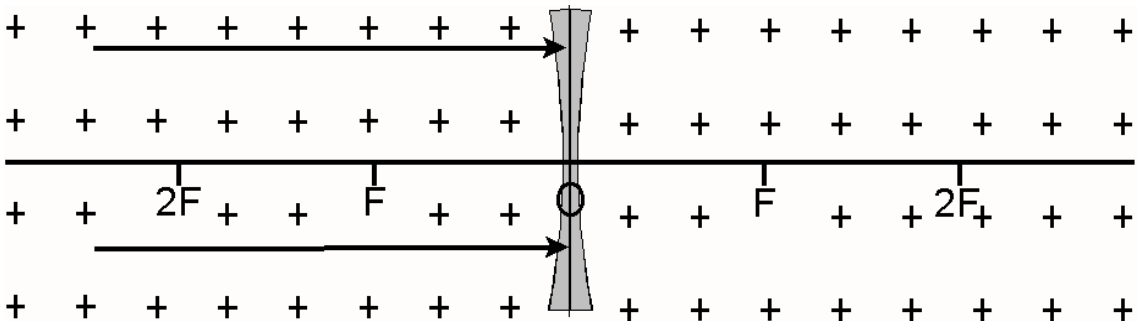
8) In order to produce an ERECT IMAGE with a CONVEX (CONVERGING) LENS, the object must be placed

9) In order to produce the LARGEST IMAGE POSSIBLE with a CONVEX (CONVERGING) LENS, the object must be placed

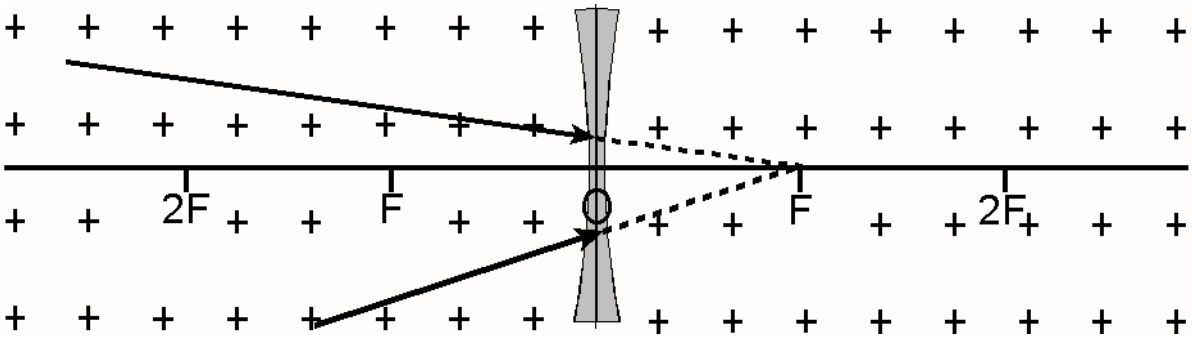
Finding the Images of a Concave/Diverging Lens
Characteristic Rays

Complete the following characteristic rays:

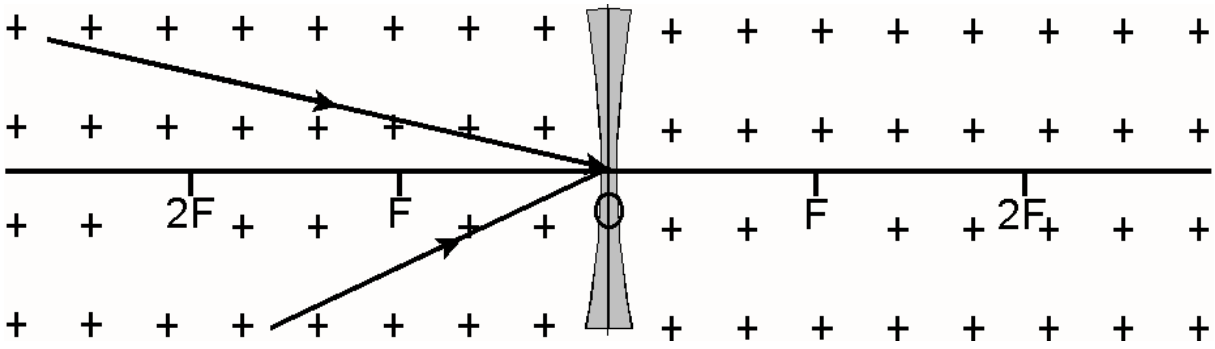
1) Any incident ray parallel to the principal axis will

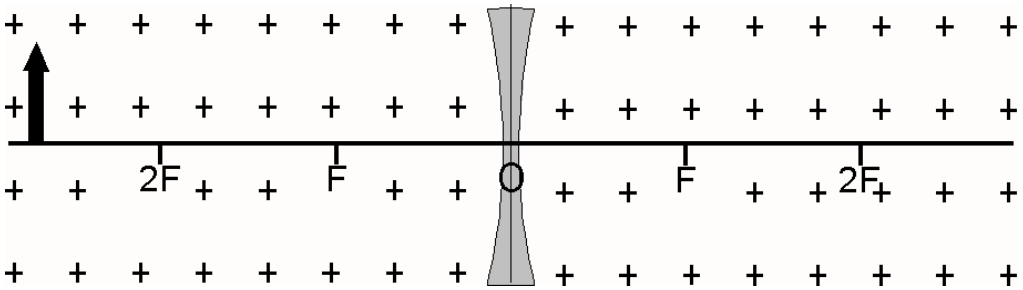
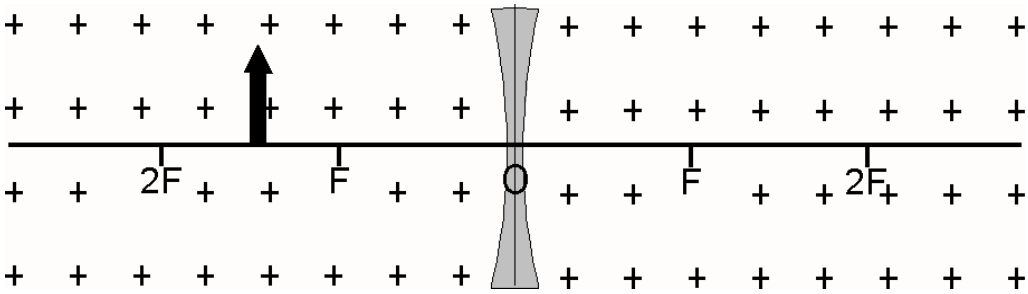
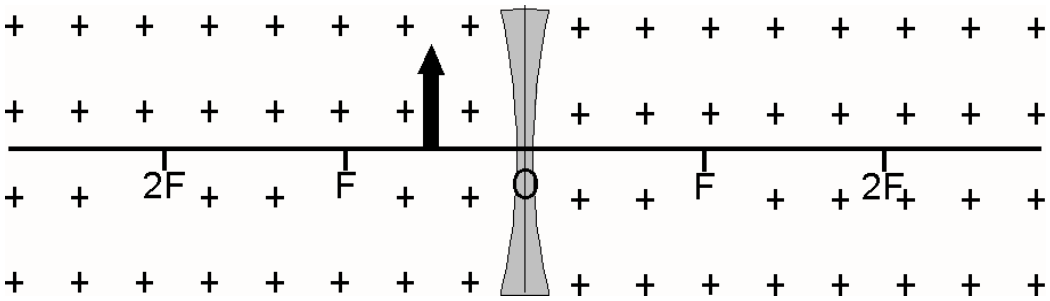


2) Any incident ray moving toward the Focus will



3) Any incident ray passing through the Optical Centre will



Object Location	Images Formed by Diverging Lenses Ray Diagrams	Image Location
Beyond 2F		**Location** **Orientation** **Size** **Type**
At 2F		**Location** **Orientation** **Size** **Type**
Between F and 2F		**Location** **Orientation** **Size** **Type**

4) If the OBJECT IS MOVED far beyond twice the focal length (2F) of a CONCAVE (DIVERGING) LENS, the image will move

5) If the OBJECT IS MOVED close toward the focus of a CONCAVE (DIVERGING) LENS, the image will move

6) In order to produce a VIRTUAL IMAGE with a CONCAVE (DIVERGING) LENS, the object must be placed

7) In order to produce a REAL IMAGE with a CONCAVE (DIVERGING) LENS, the object must be placed

8) In order to produce the LARGEST IMAGE POSSIBLE with a CONCAVE (DIVERGING) LENS, the object must be placed