Lenses

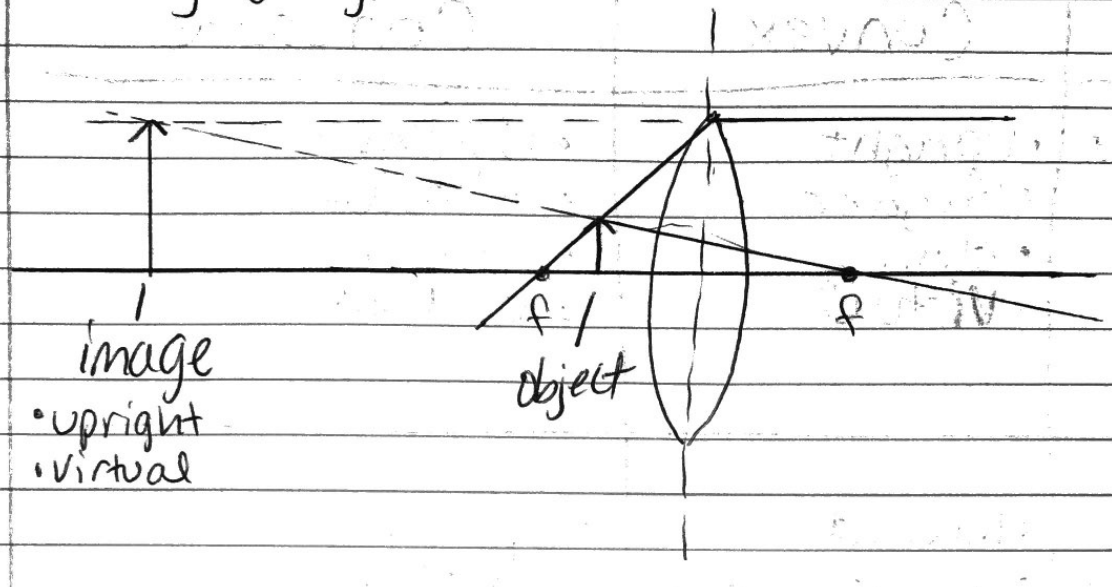
	Convex (converging)	Concave (diverging)
Inside the focus	• Upright • Bigger • closer • Virtual	• Upright • smaller • closer • virtual
Outside the focus	• Inverted • smaller or bigger • closer or farther • Real	• Upright • smaller • closer • virtual

only time there is a real image

Real images are always inverted.
Virtual images are always upright.

- Nearsightedness → don't see far — Concave lenses let you see things far away.
- Farsightedness → don't see close up — convex lenses let you see things close up.

Ray diagrams



- upright
- virtual

3 rules for ray diagrams:

1. Light that comes in through the focus, will always exit parallel
2. Light that comes in parallel will exit through focus.
3. Anything that goes through center, won't refract.

"Parallel, through f"
"Through f, parallel"

Where your lines intersect, is where your image will appear