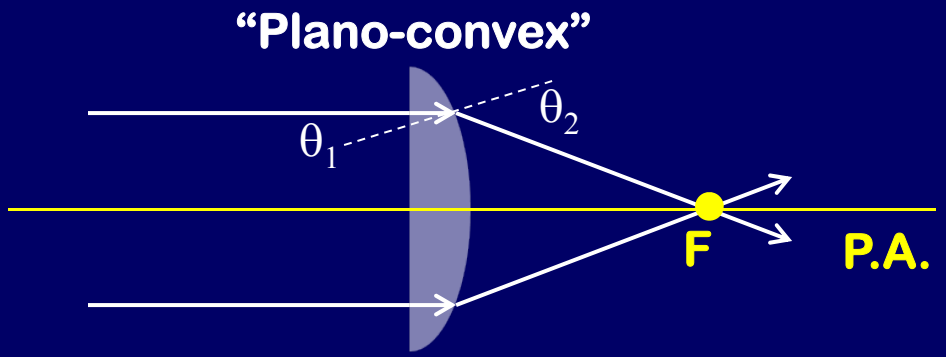
4) Lenses

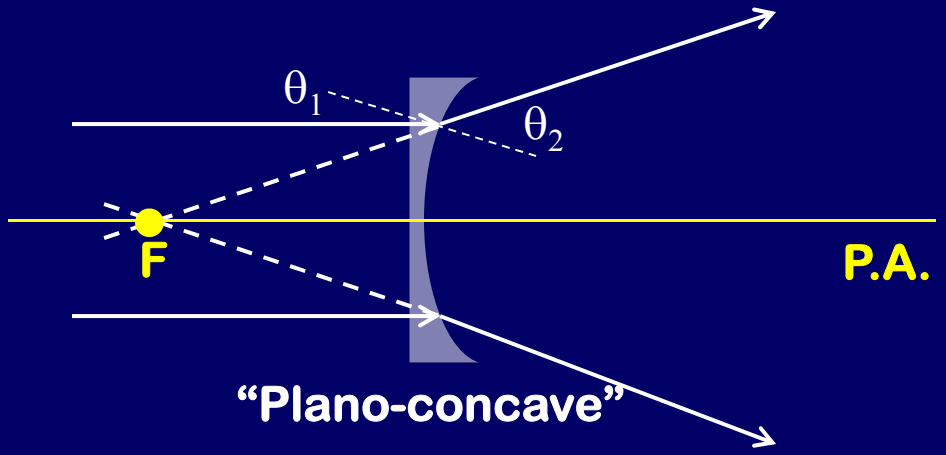
Converging lens:

– Rays parallel to P.A. converge on focal point



Diverging lens:

– Rays parallel to P.A. diverge as if emerging from focal point behind lens



Focal point determined by geometry and Snell's Law: $n_1 \sin(\theta_1) = n_2 \sin(\theta_2)$

Larger n_2/n_1 = more bending, shorter focal length.
Smaller n_2/n_1 = less bending, longer focal length.
$n_1 = n_2$ => No Bending, f = infinity