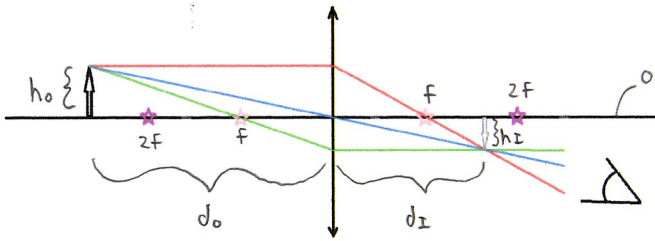
## CONVERGING LENS

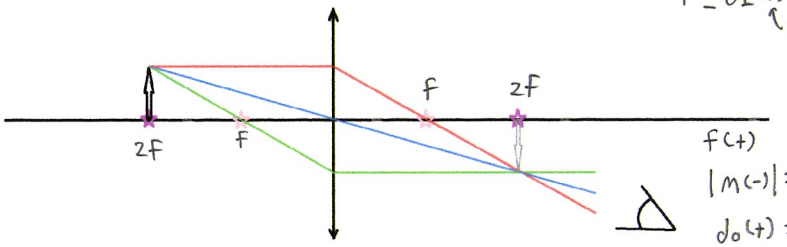



f(+) — INVERTED

$|m(-)| < 1$ ← SMALLER THAN OBJECT

$d_o(+) > 2f$

$f < d_I(+) < 2f$ ← REAL

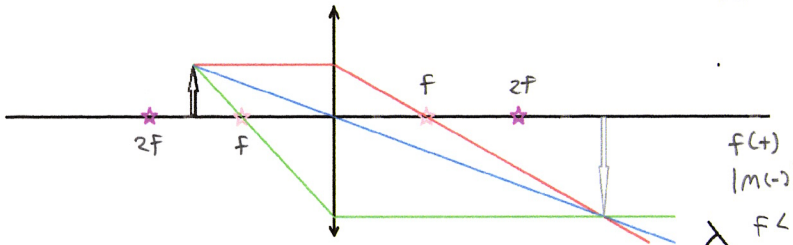



f(+) ← SAME SIZE AS OBJECT

$|m(-)| = 1$

$d_o(+) = 2f$

$d_I(+) = 2f$

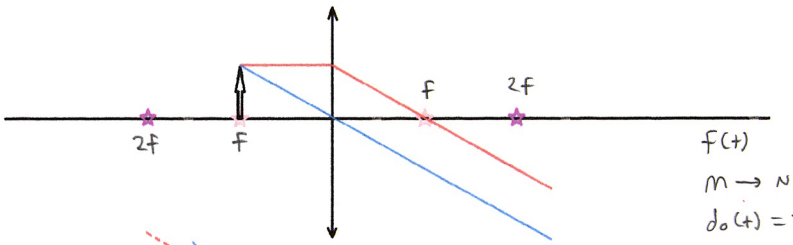



f(+)

$|m(-)| > 1$

$f < d_o(+) < 2f$

$d_I(+) > 2f$

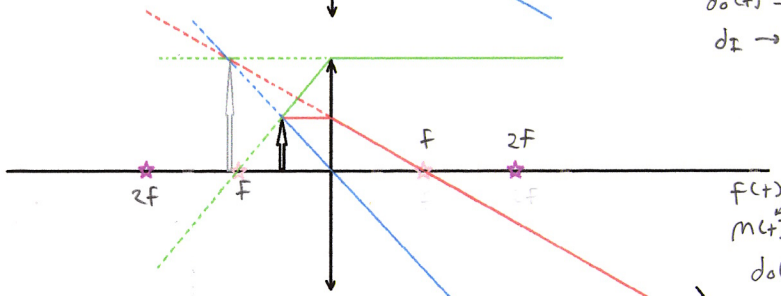



f(+)

$m \rightarrow$ NO IMAGE

$d_o(+) = f$

$d_I \rightarrow$ NO IMAGE



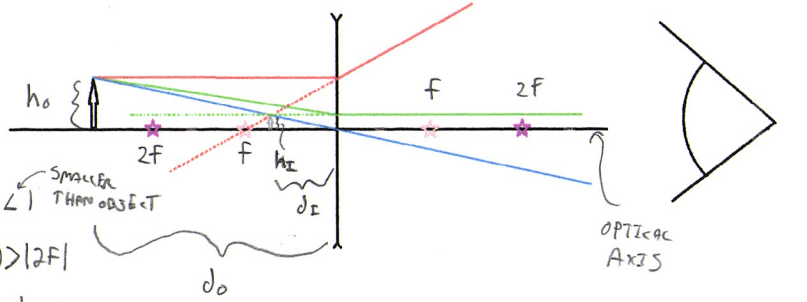

f(+) ← SAME ORIENTATION AS OBJECT "UPRIGHT"

$m(+) > 1$

$d_o(+) < f$

$|d_I(-)| > d_o(+)$ ← VIRTUAL IMAGE

## DIVERGING LENS



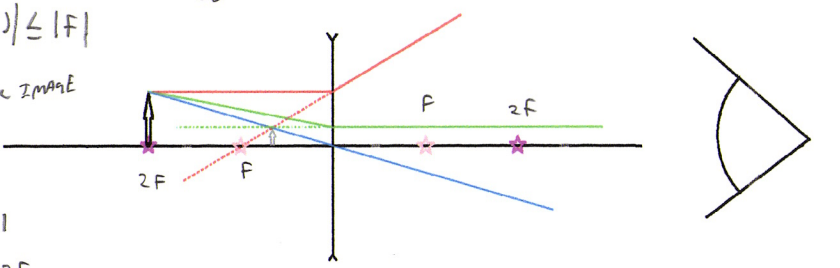

SAME ORIENTATION AS OBJECT

f(-) ← SMALLER THAN OBJECT

$m(+) < 1$

$d_o(+) > |2f|$

$|d_I(-)| < |f|$ ← VIRTUAL IMAGE

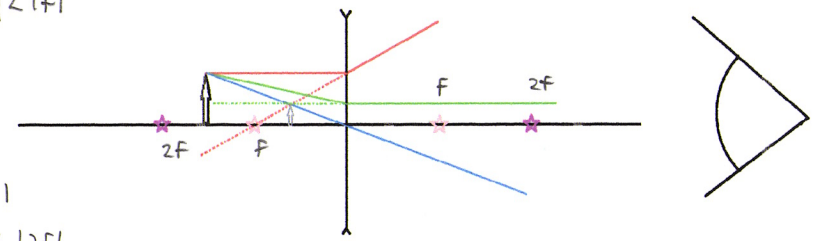



f(-)

$m(+) < 1$

$d_o(+) = 2f$

$|d_I(-)| < |f|$

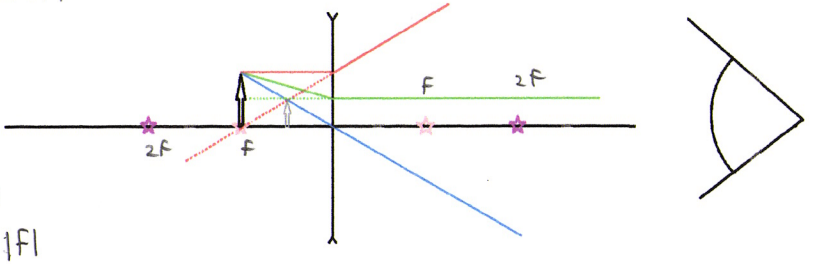



f(-)

$m(+) < 1$

$|f| < d_o(+) < |2f|$

$|d_I(-)| < |f|$

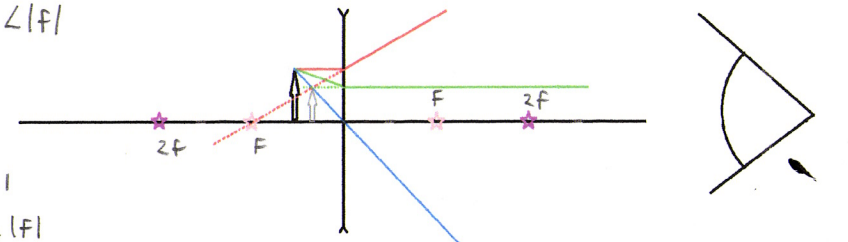



f(-)

$m(+) < 1$

$d_o(+) = |f|$

$|d_I(-)| < |f|$




f(-)

$m(+) < 1$

$d_o(+) < |f|$

$|d_I(-)| < |f|$