It's Always the Same:

$$\frac{1}{S} + \frac{1}{S'} = \frac{1}{f} \qquad M = -\frac{S'}{S}$$

You just have to keep the signs straight:

s' is positive for a real image
f is positive when it can produce a real image

Lens sign conventions

S: positive if object is "upstream" of lens
S': positive if image is "downstream" of lens
f: positive if converging lens

Mirrors sign conventions

S: positive if object is "upstream" of mirror
S': positive if image is "upstream" of mirror
f: positive if converging mirror (concave)