

SX Galilean Telescope

$$MP = 5 \quad (\text{erect image})$$

$$L = 100 \text{ mm}$$

$$MP = - \frac{f_{\text{obj}}}{f_{\text{eye}}}$$

$$f_{\text{obj}} = -5 f_{\text{eye}}$$

$$L = f_{\text{obj}} + f_{\text{eye}} = 100 \text{ mm}$$

$$-5 f_{\text{eye}} + f_{\text{eye}} = 100 \text{ mm}$$

$$f_{\text{eye}} = -25 \text{ mm}$$

$$f_{\text{obj}} = 125 \text{ mm}$$