

Look at Figure 1.22.

$$q = a - f = a - ea = (1 - e)a = 3.63 \cdot 10^5 \text{ km}$$

Similarly,

$$Q = 4.05 \cdot 10^5 \text{ km}$$

The maximum and minimum apparent diameters are $0.548^\circ = 32.9'$
and $0.492^\circ = 29.5'$.