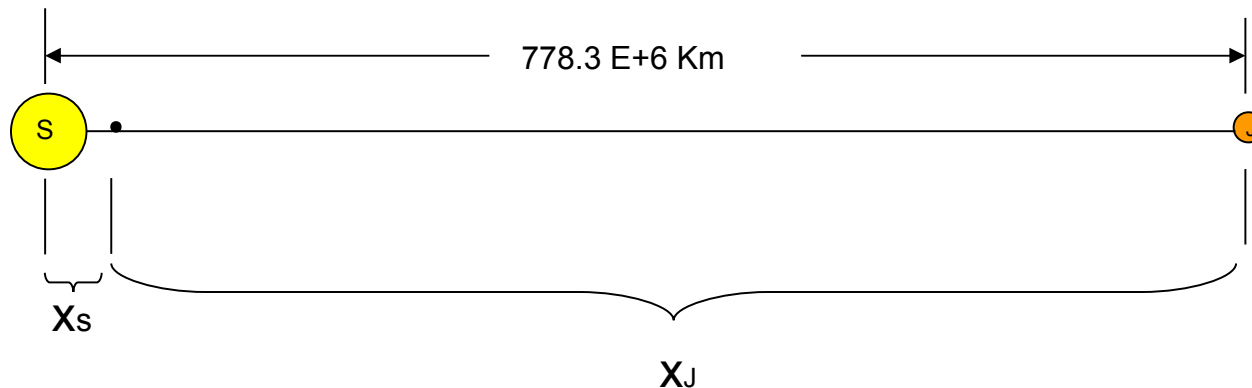


Two Object Orbit Around One Another at their Common C.G. Called the Barycenter

For the Sun and Jupiter:
(everything other one will be smaller)



$$m_s x_s = m_j x_j$$

Solve for x_s/x_j :

$$x_s/x_j = m_j/m_s = (1.900\text{E}+27)/(1.989\text{E}+30)$$

$$x_s/x_j = 0.000955$$

$$x_s + x_j = 7.783\text{E}8; x_s = 7.783\text{E}8 - x_j$$

$$(7.783\text{E}8/x_j) - 1 = 0.00093$$

$$x_j = 7.775\text{E}8 \text{ and } x_s = 742,800 \text{ km}$$

**\therefore Sun-Jupiter
Barycenter is just
outside Sun's Radius
by about 50,000 km**

Sun's Radius:
696,265 km