

First, we will draw the scenario



Figure 1: Geometry. S is the satellite, B are the celestial bodies

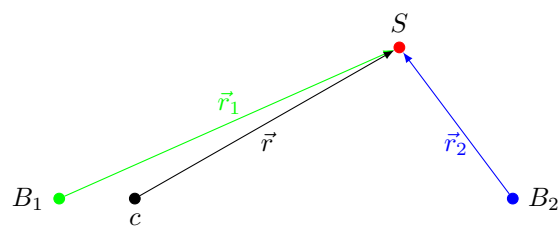


Figure 2: Vectors. Note d_1 refers to the distance from c to B_1 and d_2 refers to the distance from c to B_2 . Predictably, $d_{12} = d_1 + d_2$ is the distance between the bodies