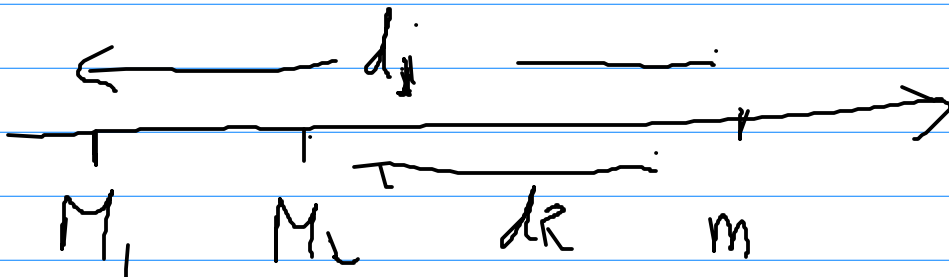
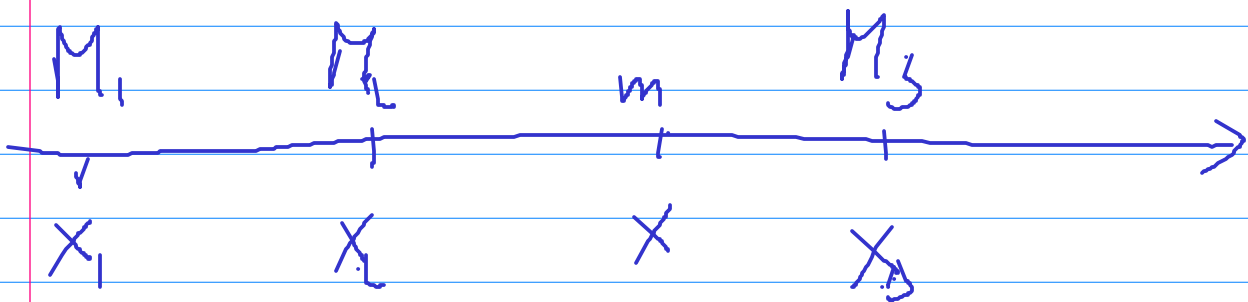


$$F_m^{(M)} = -\frac{GMm}{d^2}$$



$$F_m^{(M_1, M_2)} = F_m^{(M_1)} + F_m^{(M_2)}$$

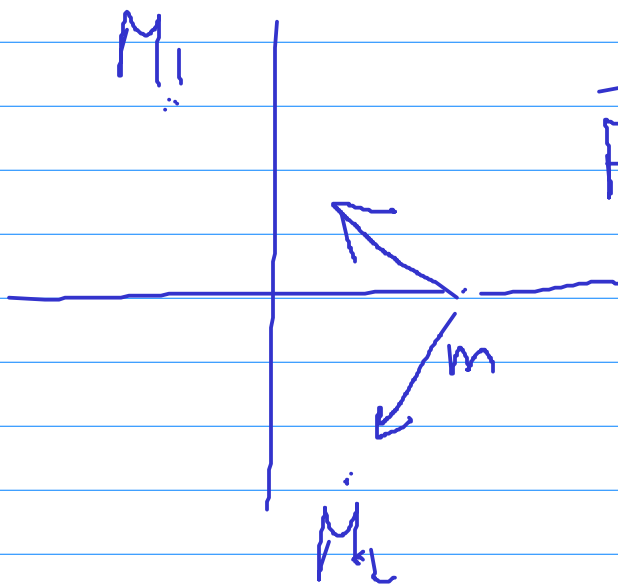


$$\frac{F}{m} = -\frac{GM_1 m}{|x-x_1|^2} - \frac{GM_2 m}{(x-x_2)^2} + \frac{GM_3 m}{(x-x_3)^2}$$

$$\frac{-GM_1}{(x-x_1)^2} \frac{(x-x_1)}{|x-x_1|} \dots \text{etc.} = \frac{GM_j}{(x-x_j)^2} \frac{(x-x_j)}{|x-x_j|}$$

$$F_m^{(M_i)} = \frac{-GM_i m}{(x-x_i)^2} \frac{(x-x_i)}{|x-x_i|}$$

$$= \frac{-GM_i m}{|x-x_i|^3} (x-x_i)$$



$$\vec{F}_i = \frac{-GM_i m}{|\vec{r} - \vec{r}_i|^3} (\vec{r} - \vec{r}_i)$$

