$$\frac{PSA:2}{Z = f - mlOcosO + Osno}$$

$$O = mglsinO - mlZcosO$$

$$mlZ$$

$$Z = f - mlO$$

$$M + m$$

$$O = -Z$$

$$\frac{1}{2} = \frac{f + m \chi(\frac{12}{\chi})}{M + m}$$

$$\frac{1 - \frac{m}{M + m}}{1 - \frac{m}{M + m}} = \frac{f}{M + m}$$

$$Z = \frac{f}{(n+m)(1-\frac{1}{m+m})} = \frac{f}{M}$$

$$O = \frac{f}{2m} \left[ \frac{1}{2} - \frac{f}{M} \right]$$