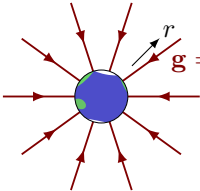
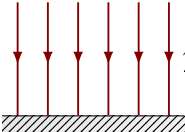


$$\mathbf{F}_g = -mg\hat{y}$$



$$\mathbf{g} = -\frac{gm}{r^2} \hat{\mathbf{r}}$$



$$\mathbf{g} = -g\hat{\mathbf{z}}$$