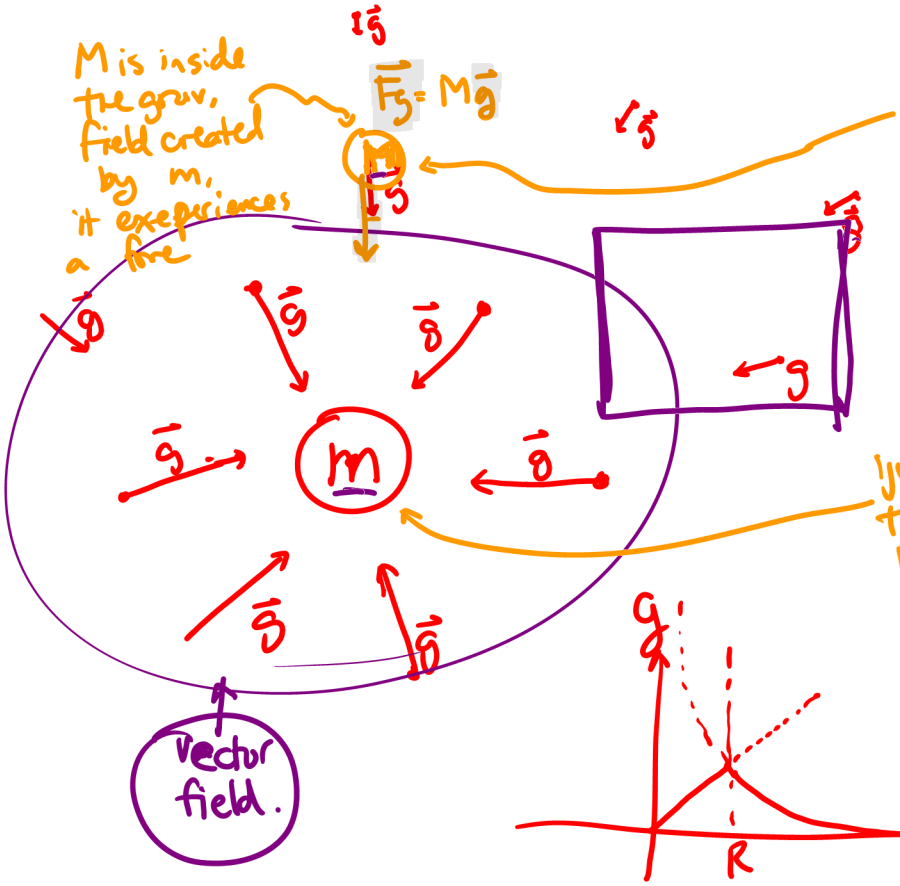
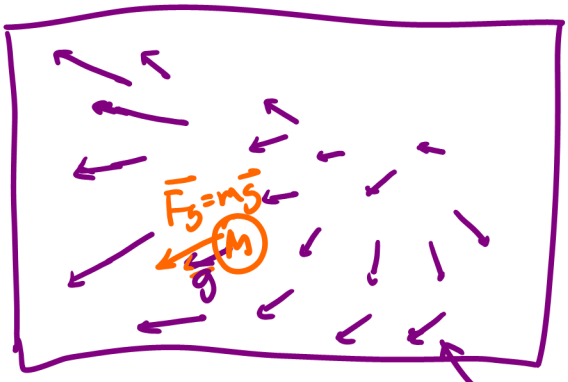
- can calculate $\vec{g}$ (grav. field) anywhere in the vicinity of the source mass m.

both magnitude & direction

$$g = \frac{GM}{r^2}$$





grav. field from "something", don't necessarily know what configuration of masses created it