

$$\vec{p} = \gamma_u m_0 \vec{u}$$

$$\gamma = \frac{1}{\sqrt{1 - \frac{u^2}{c^2}}}$$

$$E = m c^2$$

$$m = \gamma_u m_0$$

$$E = \gamma_u m_0 c^2$$

~~2m~~

$$E = \gamma_u M_0 c^2 = 2.5 m_0 c^2$$

$$M_0 = 2.5 m_0$$



$$v = 0.6c$$

S'

$$u_x = 0.6c$$

$$p_{zx}' = \gamma_u m_0 u$$

$$= \frac{1}{\sqrt{1 - \left(\frac{1.2}{1.36}\right)^2}} m_0 \frac{1.2}{1.36} c$$

$$E = \gamma_u m_0 c^2$$

$$K = m.c^2 - m_0.c^2$$

$$E^2 = p^2 c^2 + m_0^2 c^4$$

$$E = 7 m_0 c^2$$

$$M_0 = 4 m_0$$

$$E = 8 m_0 c^2$$

$$= 2 \times 4 m_0 \times c^2$$

$$= 2 M_0 c^2$$

$$= \gamma_u M_0 c^2$$