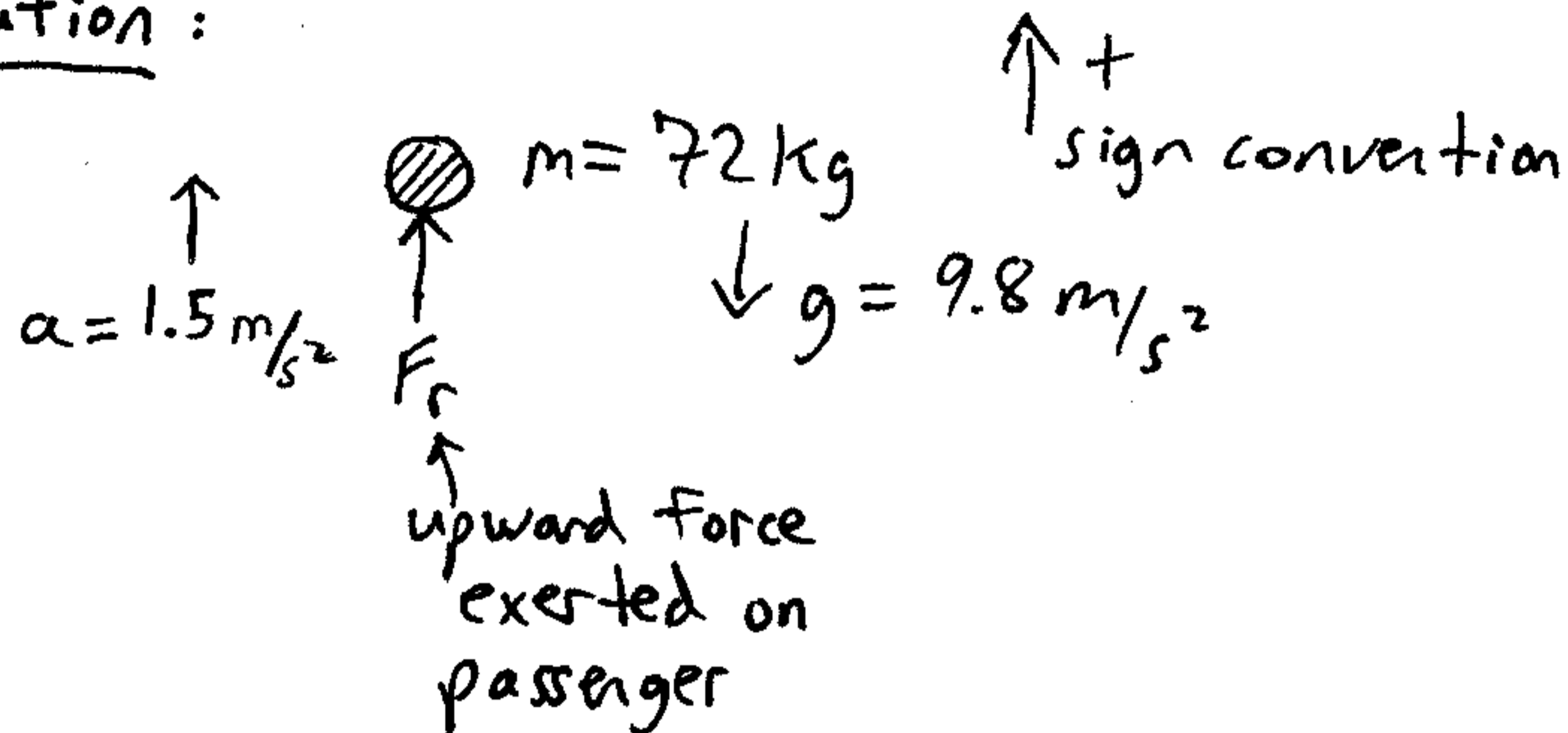


This is a force and motion problem involving Newton's laws.

A helicopter is accelerating upward at 1.5 m/s^2 . What is the upward force exerted on a 72 kg passenger?

Solution:



Apply Newton's 2nd law in vertical direction:

$$\sum F = ma$$

$$F_r - mg = ma$$

$$F_r = m(g+a)$$

$$F_r = 72(9.8 + 1.5) = 813.6 \text{ N (answer)}$$