

66. The mass of the pilot is $m = 735/9.8 = 75$ kg. Denoting the upward force exerted by the spaceship (his seat, presumably) on the pilot as \vec{F} and choosing upward the $+y$ direction, then Newton's second law leads to

$$F - mg_{\text{moon}} = ma \implies F = (75)(1.6 + 1.0) = 195 \text{ N} .$$