Apparent Weight Preflight

- You are traveling up on an elevator to the 30th floor of the Sears (OK, Willis) tower. As it nears the 30th floor, your weight appears to be

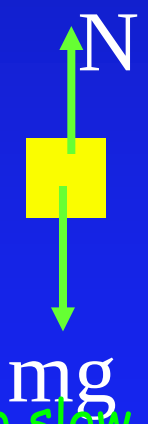
50% 1) heavier 19% 2) the same 31% 3) lighter

$$\Sigma F_y = ma_y$$

$$N - mg = ma_y$$

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

$a < 0$. so $N < mg$



"Acceleration is downward (causing you to slow down), so in our case, acceleration would be negative and using the equation: F=m(g+a), F=m(g-a); thus you would be lighter."