**Answer on Question #48906, Physics, Mechanics - Kinematics - Dynamics**

*A man standing on a scale in an elevator notices this at the scale he reads 30 newtons greater than his normal weight. Which type of movement of the elevator could cause this greater-than-normal reading?*

If the weight of a man on scale is constant and greater than his normal weight, an elevator should move up with constant acceleration

If we use the Second Newton's law:

$$P - mg = ma \rightarrow P = m(g + a)$$

Where $P$ is a weight of a man noticed at the scale.

Normal weight is $mg$. Therefore, if an elevator moves up the weight of a man is greater. And, if acceleration is constant, the weight will be constant too.

Answer: the elevator is moving up with constant acceleration.