

Can a situation exist in which an object has zero acceleration and nonzero velocity?

Answer:

Yes, it's true. Object can move with zero acceleration and nonzero velocity.

There is velocity of object:

$$V = V_0 + at, \text{ where}$$

V_0 – primary speed

a – acceleration

t – time

If $a=0$ then velocity of the object will be $V = V_0 = \text{const}$

It's called rectilinear constant motion.