Answer on Question #61727-Physics-Mechanics | Relativity

A particle has:

- an average acceleration of 6 m/s^2 if it goes from 2 m/s to 6 m/s in 2 seconds.
- an average acceleration of 4 m/s^2 if it goes from 2 m/s to 6 m/s in 2 seconds.
- an average acceleration of 12 m/s^2 if it goes from 2 m/s to 6 m/s in 2 seconds.
- an average acceleration of 3 m/s^2 if it goes from 2 m/s to 6 m/s in 2 seconds.
- an average acceleration of 2 m/s^2 if it goes from 2 m/s to 6 m/s in 2 seconds.

Solution

The average acceleration is

$$a = \frac{v_f - v_i}{t} = \frac{6-2}{2} = 2\frac{m}{s^2}.$$

So, the last choice is true.