

Answer on Question #69097 – Physics – Mechanics | Relativity

A ball rolls up a slope. At the end of 3 secs, its velocity is 20 cm/s, at the end of 8 secs its velocity is 0. What is its average acceleration from 3rd to 8th second?

Solution.

We use the definition of acceleration:

$$a = \frac{\Delta v}{\Delta t} = \frac{v_2 - v_1}{t_2 - t_1} = \frac{0 - 20}{8 - 3} = -4 \text{ cm s}^{-2} = -0.04 \text{ m s}^{-2}.$$

Answer:

$$a = -0.04 \text{ m s}^{-2}.$$

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