

Answer on Question #44702, Physics, Mechanics | Kinematics | Dynamics

Question:

The velocity of a particle is $v = 5 + 2(a_1 + a_2 t)$ where a_1 and a_2 are constants and t is the time. What is the acceleration of the particle.

Answer:

Acceleration of the particle equals:

$$a = dv/dt$$

where v is velocity of the particle, t is time.

Therefore:

$$a = d/dt(5 + 2(a_1 + a_2 t)) = a_2$$

Answer: a_2