Answer on Question #44377, Physics, Mechanics | Kinematics | Dynamics

Question:

Starting from rest a particle confined to move along a straight line is accelerated at a rate of 4m/s(squared). After 10 seconds how far will the particle have traveled?

Answer:

Distance for uniformly accelerated motion can be expressed as:

$$s = \frac{at^2}{2}$$

where t is time, a is acceleration.

$$s = \frac{at^2}{2} = \frac{4 \cdot 10^2}{2} = 200 \, m$$

Answer: 200 m