AP Physics C: E&M

(Miso Park)

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Contents

1 Kinematics (example section)

1.1 Core definitions

- Position: $\mathbf{r}(t)$
- Velocity: $\mathbf{v} = \frac{\mathrm{d}\mathbf{r}}{\mathrm{d}t}$
- Acceleration: $\mathbf{a} = \frac{\mathrm{d}\mathbf{v}}{\mathrm{d}t}$

1.2 Key equation / idea

If $\mathbf{a}$ is constant, then $\mathbf{v} = \mathbf{v}_0 + \mathbf{a}t$ and $\mathbf{r} = \mathbf{r}_0 + \mathbf{v}_0 t + \frac{1}{2}\mathbf{a}t^2$.

1.3 Worked example (skeleton)

Problem. ...

Setup. ...

Solve. ...

Answer. ...

2 Diagram templates

2.1 Free-body diagram (block)

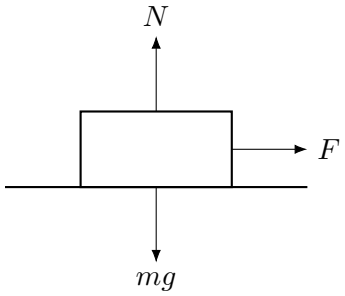

Figure 1: Example free-body diagram.

2.2 Circuit skeleton (battery + resistor)

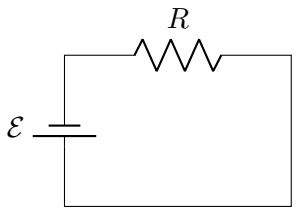

Figure 2: Basic loop (useful for Kirchhoff practice).