

1. Final Velocity Formula

$$v = u + at$$

- v = Final velocity (m/s)
 - u = Initial velocity (m/s)
 - a = Acceleration (m/s²)
 - t = Time (s)
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2. Displacement Formula (with initial velocity and acceleration)

$$s = ut + 0.5at^2$$

- s = Displacement (m)
 - u = Initial velocity (m/s)
 - t = Time (s)
 - a = Acceleration (m/s²)
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3. Velocity – Displacement Relation (no time)

$$v^2 = u^2 + 2as$$

- v = Final velocity (m/s)
 - u = Initial velocity (m/s)
 - a = Acceleration (m/s²)
 - s = Displacement (m)
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4. Displacement Formula (using average velocity)

$$s = ((u + v)/2) \times t$$

- s = Displacement (m)
- u = Initial velocity (m/s)
- v = Final velocity (m/s)
- t = Time (s)

5. Alternative Displacement Formula (with final velocity and acceleration)

$$s = vt - 0.5at^2$$

- s = Displacement (m)
 - v = Final velocity (m/s)
 - a = acceleration (m/s²)
 - t = time (s)
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Symbol	Meaning	Units
s	Displacement	metres (m)
u	Initial velocity	m/s
v	Final velocity	m/s
a	Acceleration	m/s ²
t	Time	seconds (s)