Learn to identify the variables

SYMBOL	NAME	UNIT
Δx	Change in position	m
v_0	Initial velocity	m/s
v	Later or final velocity	m/s
a	Acceleration	m/s/s or m/s^2
t	Time	s

10 m/s →

t = 0

30 m/s →

t = 5 s

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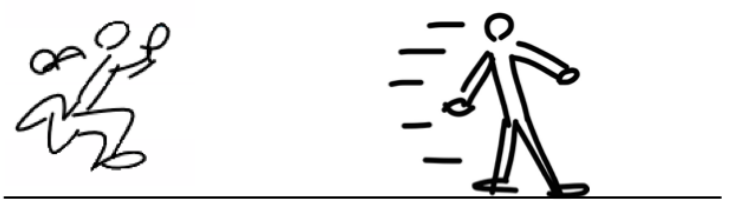

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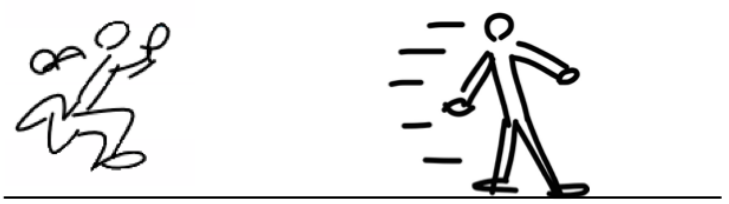

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THE EQUATIONS OF KINEMATICS

1	$\Delta x = v_0 t + \frac{1}{2} a t^2$	The change in position equation	(Final velocity)
2	$\Delta x = \frac{1}{2}\left(v_0 + v\right) t$	The average velocity equation	(Acceleration)
3	$v = v_0 + at$	The velocity equation	(Change in position)
4	$v^2 = v_0^2 + 2a\Delta x$	The timeless equation	(Time)

Solving Kinematics Problems

1. Write down what you're given.

2.Write down what you're being asked for.

3. Go shopping for the equation that has exactly those four things.

4. Plug in and solve.

5. Box answer; make sure there's units.

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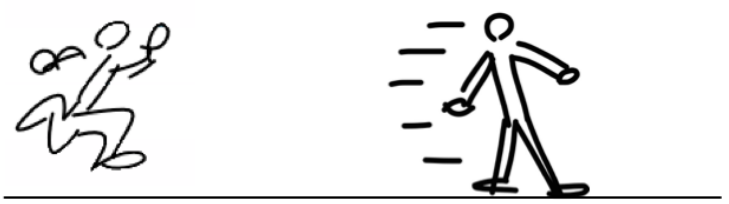

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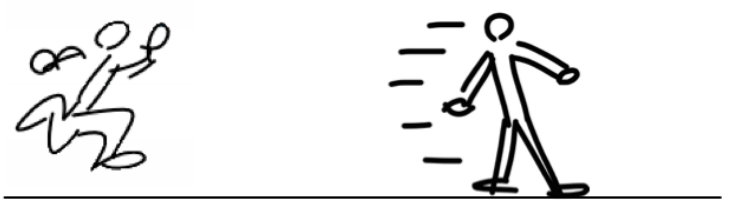

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(2) $$\Delta x = \frac{1}{2}\left(v_0 + v\right)t$$