If You Know and Unit Tables for Acceleration and Velocity
Physical Science and Technology

If you know ...	And you need ...	Use this equation:	Units will be:
Final velocity (v_f), initial velocity (v_i), and time (t)	Acceleration (a)	$a = (v_f - v_i) \div t$	m/s^2
Acceleration (a), final velocity (v_f), initial velocity (v_i)	Time (t)	$t = (v_f - v_i) \div a$	s
Acceleration (a), time (t), initial velocity (v_i)	Final velocity (v_f)	$v_f = {}_{vi} + (a \times t)$	m/s
Acceleration (a), time (t), final velocity (v_f)	Initial velocity (v_i)	$v_i = v_f - (a \times t)$	m/s

Variable	Units	Question
Acceleration (a)	meters / second^2 m/s^2	What was the acceleration? How quickly did _____ accelerate?
Final velocity (v_f)	meters/ second m/s	What was the final velocity? After _____ how quickly will it be going?
Initial velocity (v_i)	meters/second m/s	What was the initial velocity? How fast was _____ going at first?
Time (t)	seconds s	How long? How much time?

If You Know	You Can Find	By Using
Time, Displacement	Velocity	v = d / t
Time, Velocity	Displacement	d = v * t
Displacement, Velocity	Time	t = d / v

Variable	Stands For	Units	Questions
d	Displacement	m (meters)	How far? What was the displacement?
t	Time	s (seconds)	How long? How much time? How many seconds?
v	Velocity	m/s (meters per second)	How fast? What was the velocity?