

Name: _____

Group: _____

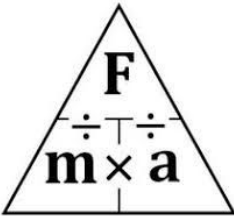
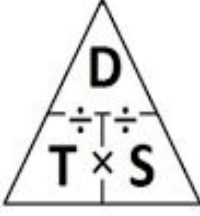
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Force and Motion: Quiz 1 Study Guide

Quiz will be on Thursday March 1, 2018

Things You Need to Know:

Speed, Distance, Time Equations and how to use them with units.
 Force, mass, acceleration equations and how to use them with units
 Definitions of inertia, force, speed and acceleration
 How to read a distance-time graph (motion story) and calculate the slope of a line.

	<p>F =</p> <p>m =</p> <p>a =</p>		<p>s =</p> <p>d =</p> <p>t =</p>
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Vocabulary

Define each vocabulary word in your own words.	
speed	
acceleration	
force	
inertia	

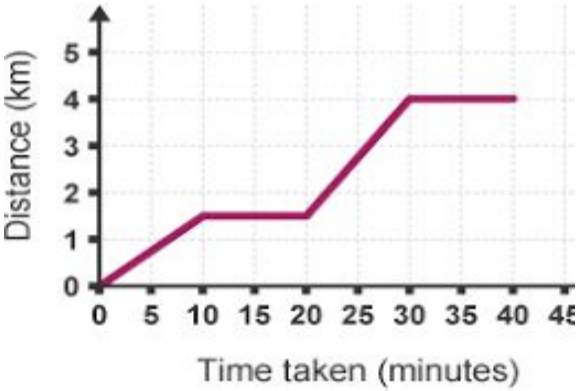
Sketch a distance-time graph (no numbers needed) that shows each.

Constant speed forward	Object at rest	Constant speed backward	Acceleration	Deceleration

Show all of your working.

Calculate the force on an 80-kg object accelerating at a rate of 6 m/s ² .	Calculate the distance traveled by a car moving at 70km/h for 2.5 hours.	How much time would it take to reach a location 550 km away if you travel at an average speed of 70 km/h?
What is the mass of an object that accelerates 9m/s ² when a force of 108 N is applied to it?	How fast is a car that travels 94 km in 4 hours moving?	How much will a 25-kg object accelerate if a force of 75 N is applied to it?

Calculating Slope

		<p>Slope = $\frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$</p> <p>Find the slope for EACH leg for the graph.</p>	
Slope of Leg 1	Slope of Leg 2	Slope of Leg 3	Slope of Leg 4

Motion Story

Make up a story for the graph above.