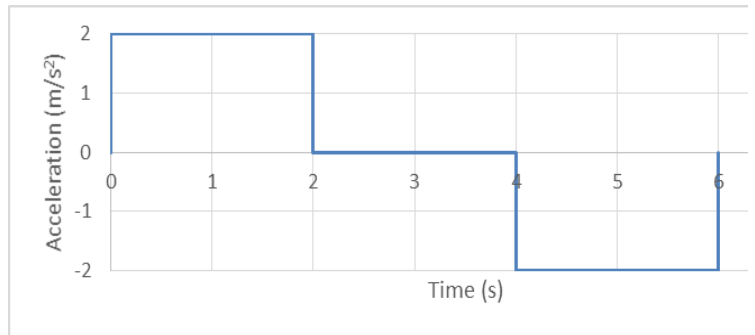
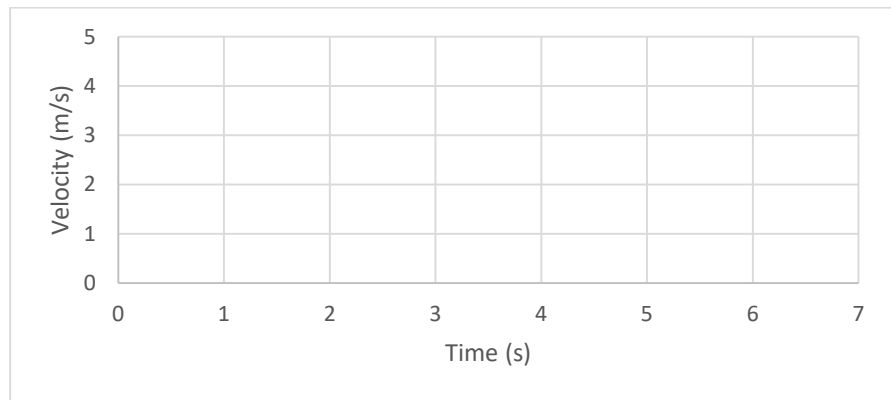


**Inferring from kinematics derivatives:** Answer the following questions based on the acceleration graph. Note the initial velocity and position are zero and the final position is 16 m.



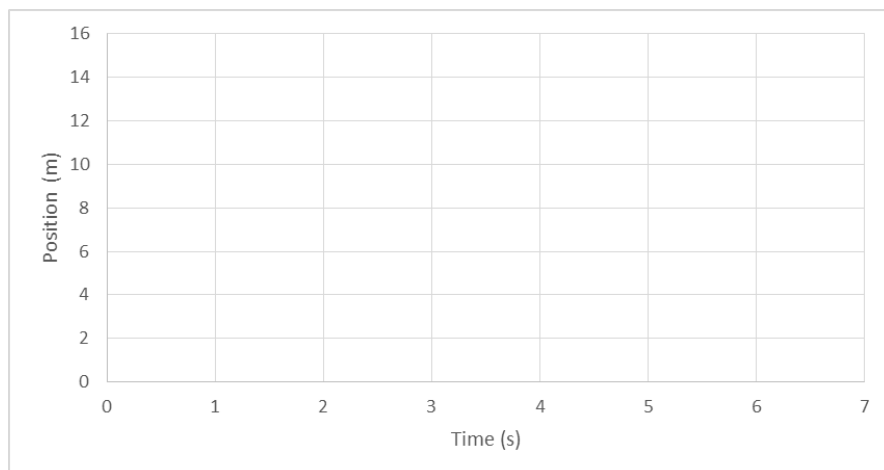
- a. Analyze the velocity versus time by completing the following table and graph

	$0 < t < 2$	$2 < t < 4$	$4 < t < 6$
$a = \frac{dv}{dt} =$			
Is the velocity line in this segment constant, linear increasing, linear decreasing, concave up or concave down?			



- b. Analyze the position versus time by completing the following table and graph

	$0 < t < 2$	$2 < t < 4$	$4 < t < 6$
$v = \frac{dx}{dt} =$			
Distance covered (area under v vs. t curve)			
Is the position line in this segment constant, linear increasing, linear decreasing, concave up or concave down?			



Inference