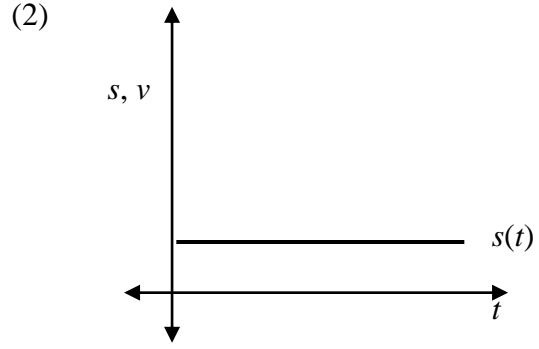
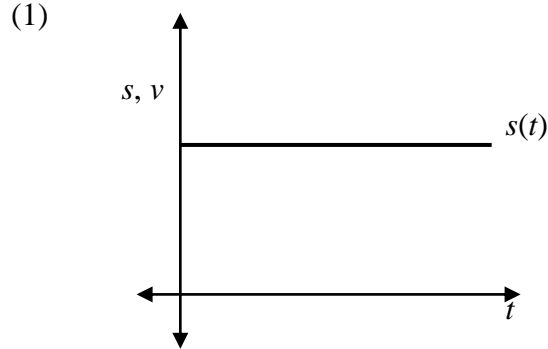
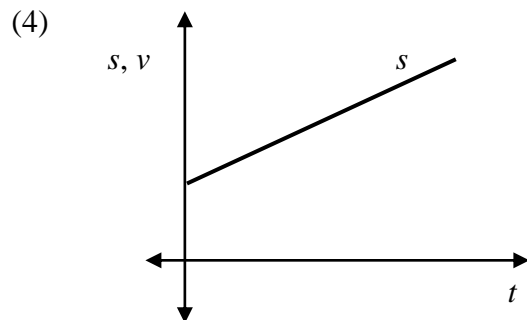
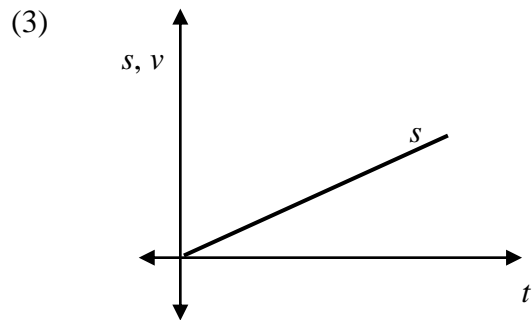


## Rate of Change 1

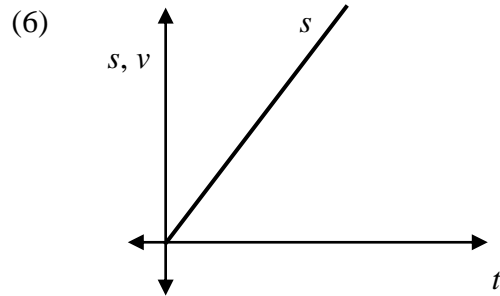
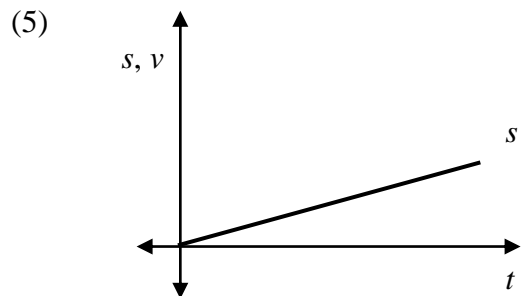
Consider a position function  $s = s(t)$ , where  $s$  gives the position of an object at time  $t$ . Let  $v = v(t)$  represent the velocity of the object at time  $t$ . For each of the following position functions, sketch the corresponding velocity functions on the same axes.



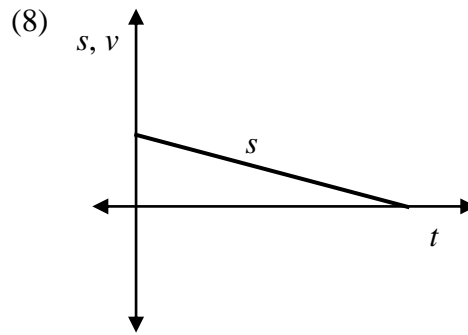
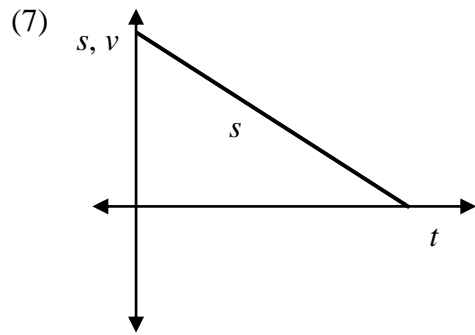
What is true about the velocity in graphs (1) and (2)? What is different about the given position graphs?



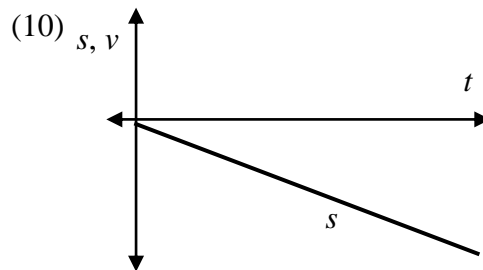
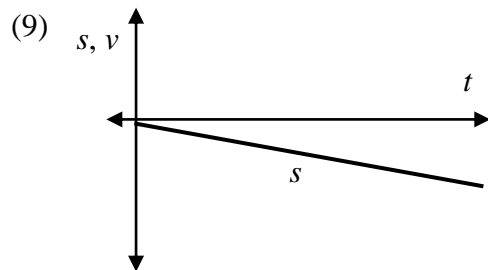
What is true about the velocity in graphs (3) and (4)? What is different about the given position graphs?



What is the same about the velocities in graphs (5) and (6)? What is different? How is this difference reflected in the given position graphs?



What is the same about the velocities in graphs (7) and (8)? What is different?  
How is this difference reflected in the given position graphs?



What is the same about the velocities in graphs (9) and (10)? What is different?  
How is this difference reflected in the given position graphs?

