

9. (9 pts) Below is a table of values for the velocity of a downhill skier.

t (seconds)	0	1.5	3	4.5	6	7.5	9	10.5
$v(t)$ (meters/second)	4	19	25	28	31	33	33	32

Calculate or estimate each of the quantities below. **Include units.**

a) (2 pts) The skier's instantaneous velocity at $t = 6$.

b) (3 pts) The distance traveled by the skier in the first 4.5 seconds.

c) (2 pts) The skier's instantaneous acceleration at time $t = 4.5$.

d) (2 pts) The skier's average acceleration over the first 4.5 seconds.