

Name: ( Key )  
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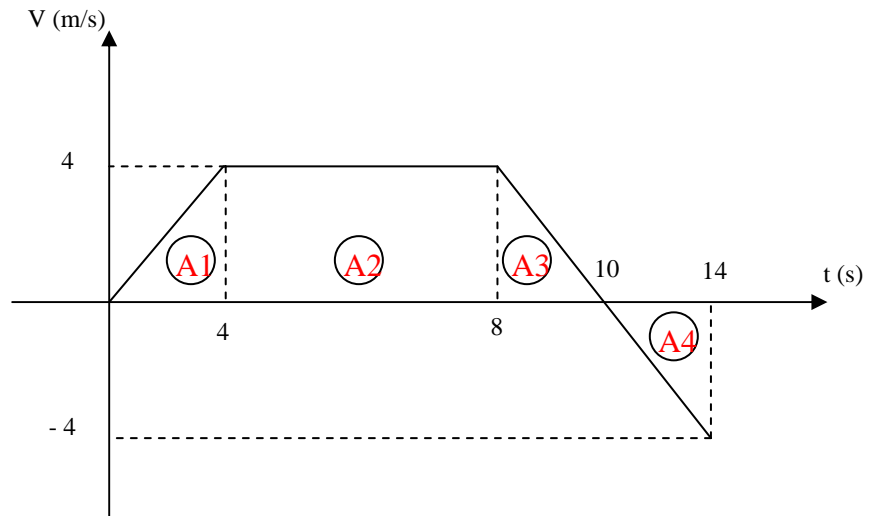
Sec.# (8) ---Quiz (2), Ch#2  
Phys 101 ( Teto '263)-( F. Enaya)

S.N:

Show your steps clearly for full credit.

Q. The ( Velocity – Time ) graph of a runner along a straight line is shown in the following graph.

- Find the total distance he traveled in 14 seconds.
- Find the average acceleration of the runner during the first 10 seconds.



> a.

Total distance = Absolute number of the total area under the curve ( All positive)

$$\Rightarrow A1 + A2 + A3 + A4 =$$

$$( 0.5 \times 4 \times 4 ) + ( 4 \times 4 ) + ( 0.5 \times 2 \times 4 ) + ( 0.5 \times 4 \times 4 ) =$$

$$= 36 \text{ m}$$

> b. During the first 10 s :

$$a_{\text{avg}} = ( v_2 - v_1 ) / ( t_2 - t_1 ) = ( 0 - 0 ) / 10 = 0$$