

a)  $d = \text{area of } v-t \text{ graph}$

$$d_{0-5} = \frac{1}{2} \cdot b \cdot h \text{ (triangle)}$$

$$= \frac{1}{2} (5 \text{ sec})(10 \text{ m/s})$$

$$d_{0-5} = +25 \text{ m}$$

b)  $d_{5-10} = \frac{1}{2} \cdot b \cdot h \text{ (triangle)}$

$$= \frac{1}{2} (5 \text{ sec})(-10 \text{ m/s})$$

$$d_{5-10} = -25 \text{ m}$$

c)  $d_{0-10} = d_{0-5} + d_{5-10}$

$$= 25 \text{ m} + (-25 \text{ m})$$

$$d_{0-10} = 0 \text{ m}$$