

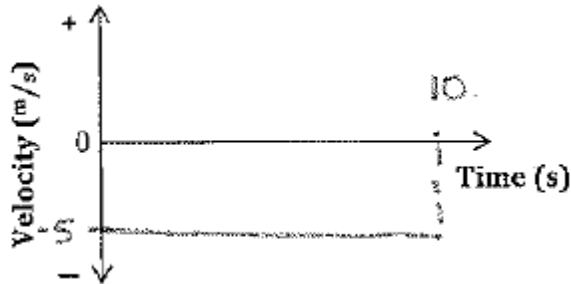
Name: _____

Period: _____

PRACTICE #4: VELOCITY V. TIME GRAPHS ANSWER KEY

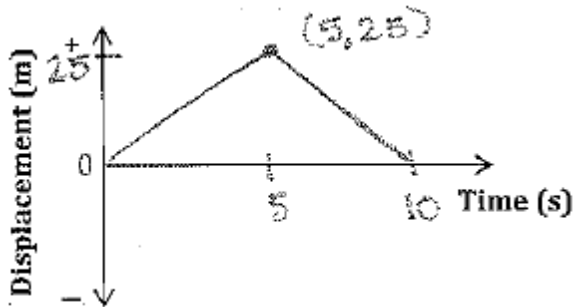
1. *The velocity is the same at every point from 0-10 seconds.*

2.



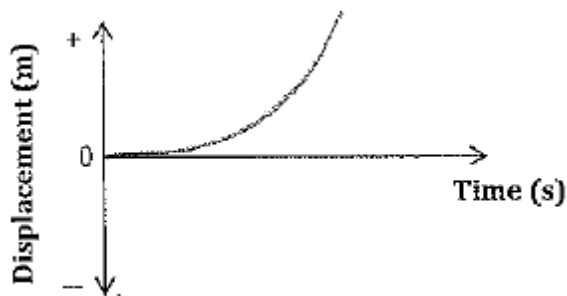
3. *Move away from the flagpole at 5 m/s for 5 seconds. Next, move towards the flagpole at 5 m/s for 5 seconds.*

4.

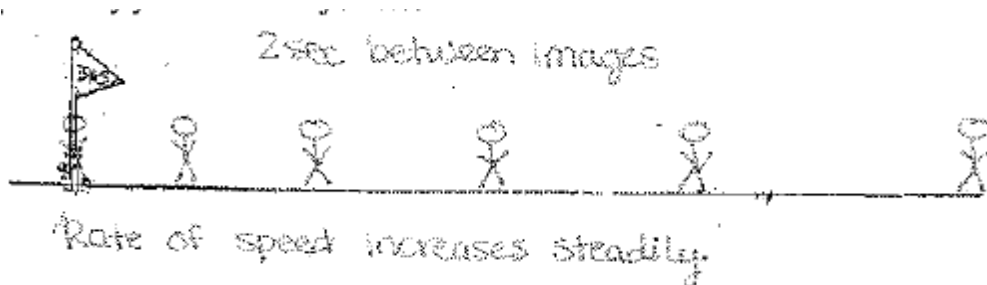


5. *Move away from the flagpole while steadily increasing speed.*

6.

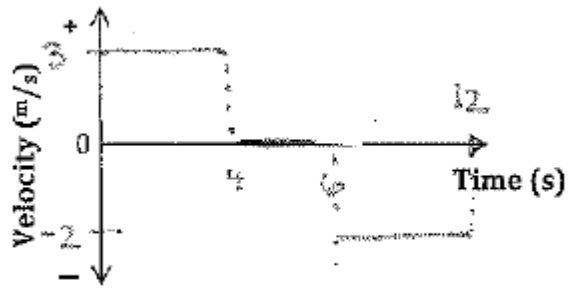


7.



8. Move away from the flagpole while increasing your speed. Then slow down to a stop. Next, move towards the flagpole while speeding up. Finally slow down to a stop.

9.



10. You end up at the flagpole:

$$d = vt$$
$$d_1 = (3 \text{ m/s})(4\text{s}) = 12\text{m}$$
$$d_2 = (-2 \text{ m/s})(6\text{s}) = -12\text{m}$$
$$d_{\text{total}} = d_1 + d_2 = 0\text{m}$$