

8. The velocity is calculated by dividing the difference in distance by the time interval involved. This is the same as determining the slope of the graph. The graph is a straight line, so we can choose any two points on the graph to determine the slope. For ease of calculation we will choose the first and last set of data points. The difference in distance is given by taking 25 m minus 0 m for 25m. The corresponding time interval involved is 50 seconds so the velocity is

$$v = 25 \text{ m} / 50 \text{ s}$$

$$v = 0.5 \text{ m} / \text{s}$$

For practice you might choose other points on the graph to calculate the velocity. You should obtain the same result regardless of your choice of points.