PART A:

Complete the following statements using the following words:

- constant
- negative
- slope (2)
- displacement
- positive
- zero

① The velocity-time graph for an object with a _____ acceleration is a straight line with constant slope.

② The _____ of the velocity-time graph for an object moving at a constant acceleration gives the value of the constant acceleration.

③ On a velocity-time graph
- ☞ a positive slope represents a _____ acceleration,
- ☞ a zero slope represents a _____ acceleration, and
- ☞ a negative slope represents a _____ acceleration.

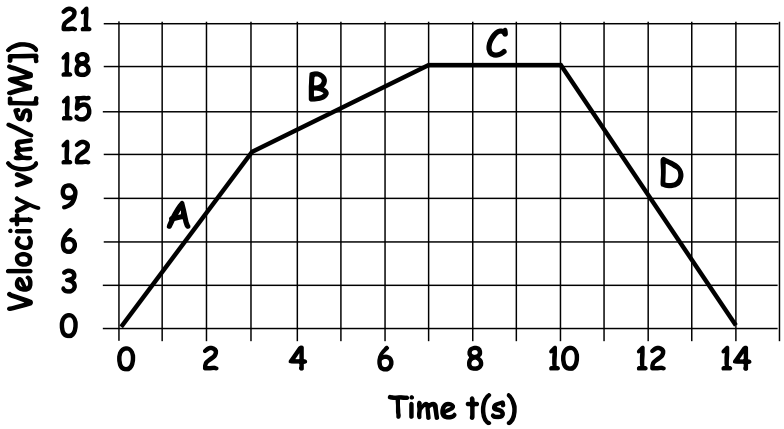
④ The average acceleration between any two points on a velocity-time graph = the _____ of the straight line joining the two points.

⑤ _____ can be determined by calculating the area beneath a velocity-time graph.

PART B:

Answer questions 1 & 2 below in the space provided. If more room is needed use the back of this sheet or a separate sheet.

The following shows the velocity-time graph for a dandelion seed blown by the wind. The seed's velocity changes during the four intervals A, B, C, and D.



1. Calculate:

(a) the acceleration during each interval.

A

B

C

D

(b) the displacement during each interval.

A

B

C

D

(c) the final position of the dandelion seed.

2. What is the seed's (i) speed and (ii) velocity at each of the following times:

(a) 2 s

(b) 8 s

(c) 12 s