

SCIENCE 1.1

ANSWERS

WORKSHEET TWO

DISTANCE-TIME GRAPHS

1. (a) Any straight line e.g.

(b) Line curving upwards e.g.

(c) Line starting to curve
downwards e.g.

(d) Second constant speed
line must be steeper than
first. e.g.

2. (a) A. ***Constant Speed (slower)***
 B. ***Stationary***
 C. ***Constant Speed (faster)***

What distance has been travelled after 5 seconds? ***10 m***

after 8 seconds? ***10 m*** after 12 seconds? ***18 m***

SECTION A $v = d/t$ $v = 10/5$ ***$v = 2 \text{ ms}^{-1}$***

SECTION B $v = d/t$ $v = 0/3$ ***$v = 0 \text{ ms}^{-1}$***

SECTION C $v = d/t$ $v = 8/4$ ***$v = 2 \text{ ms}^{-1}$***

$v = d/t$ $v = 18/12$ ***$v = 1.5 \text{ ms}^{-1}$***

Speed in section C = 2 ms^{-1}

Distance to travel to reach total of 40 m = 22 m

$t = d / v$ $t = 22/2$ ***$t = 11 \text{ s}$***

(23 seconds in total)

Time

Distance

Time

Distance

Time

Distance

Time

Distance