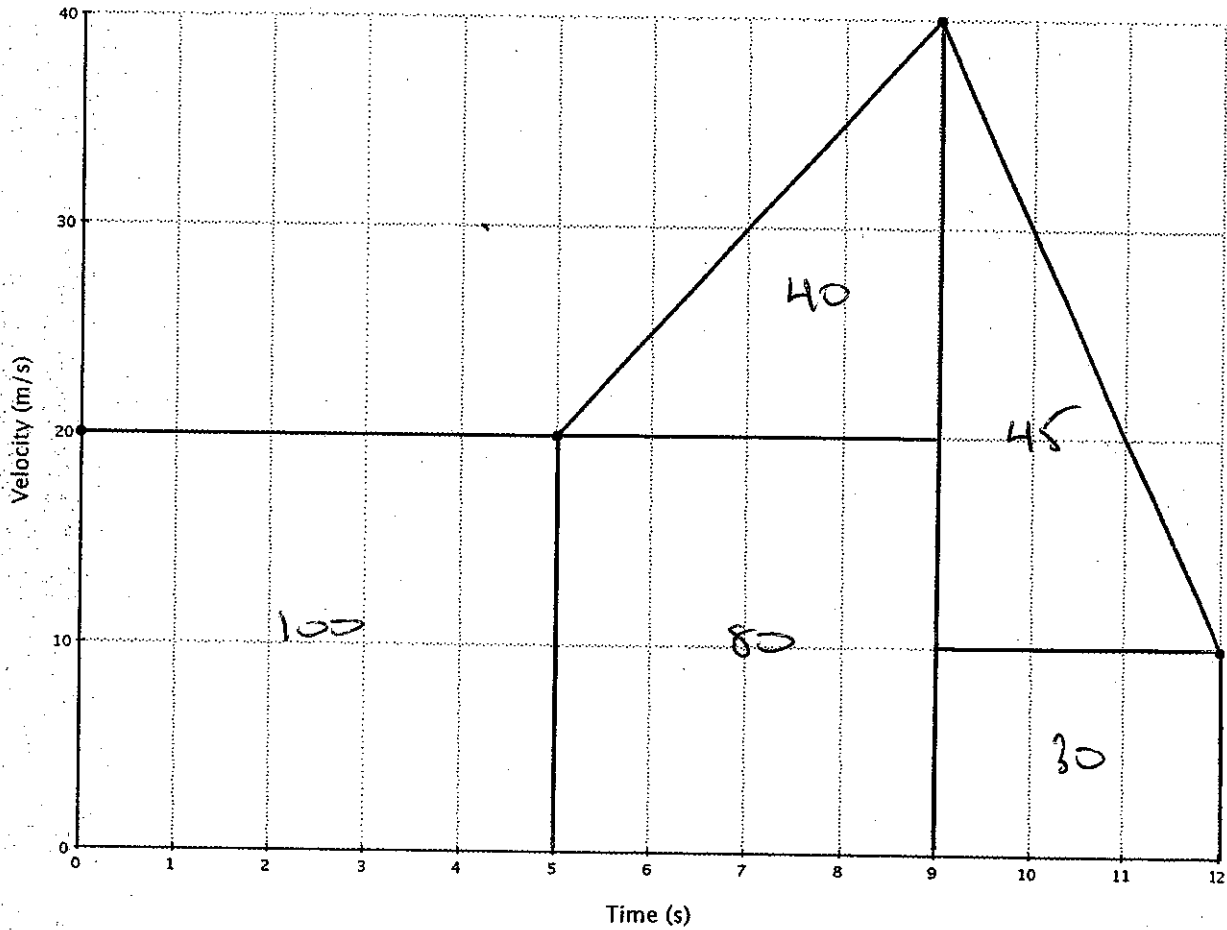


Key

### Velocity-Time Graphs

The following graph describes the motion of a car.



1. Complete the data table below showing time intervals and position.

Area

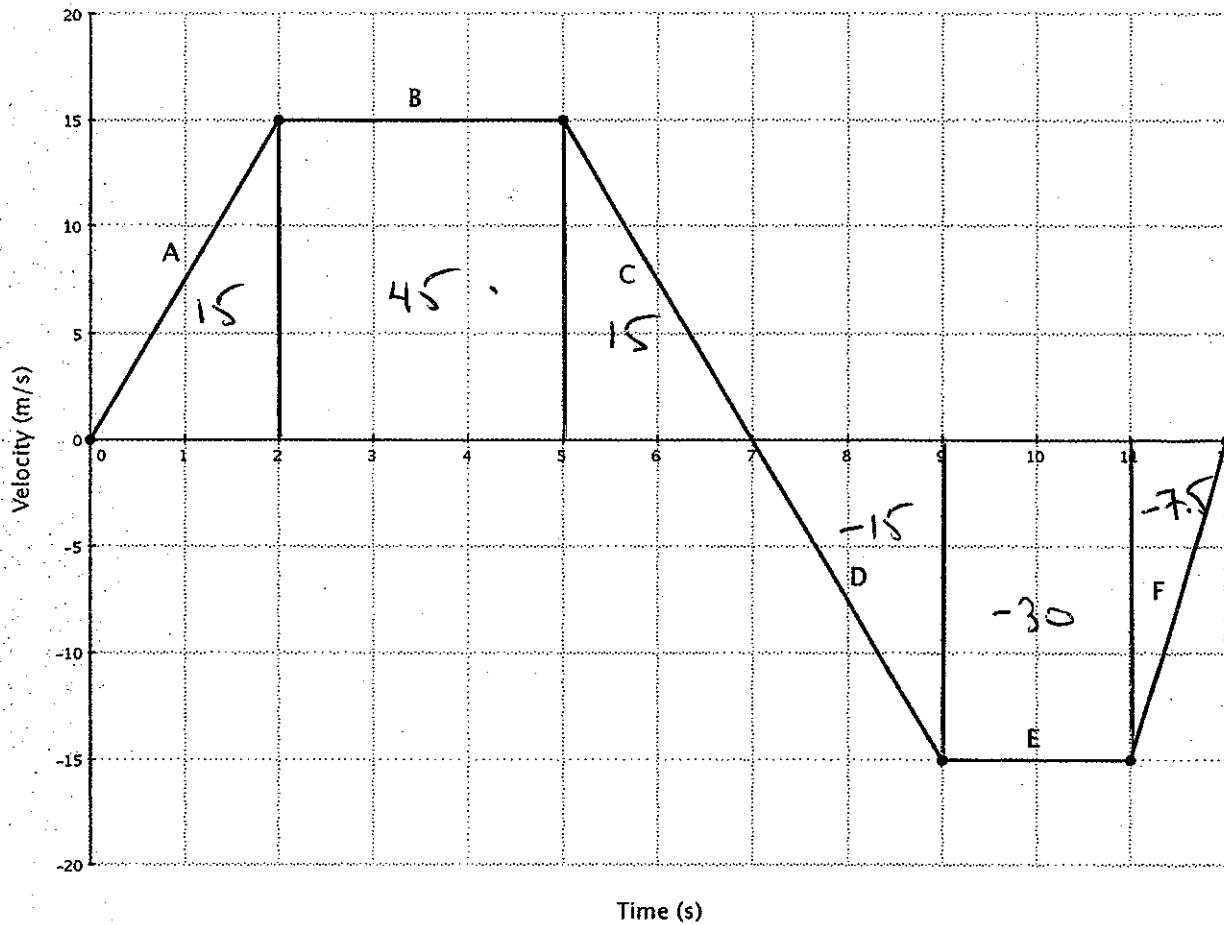
Time (s)	0.0	5.0	9.0	12.0
Position (m)	0.0	100	220	295

2. Complete the data table below showing time intervals and acceleration.

Slope

Time (s)	0.0 to 5.0	5.0 to 9.0	9.0 to 12.0
Acceleration ( $m/s^2$ )	0	5	-10

The following velocity-time graph shows the possible motion of a bicycle.



3. Complete the table showing time and position. Assume the bicycle starts at 0.0 m and 0.0 s.

Section	Time (s)	Displacement (m)	Position at the End of the Interval
	0.0	—	0.0
A	0.0–2.0	15	15
B	2.0–5.0	45	60
C	5.0–7.0	15	75
D	7.0–9.0	-15	60
E	9.0–11.0	-30	30
F	11.0–12.0	-7.5	22.5

4. Complete the table showing time and acceleration.

Section	Time (s)	Change in Velocity ( $m/s$ )	Acceleration ( $m/s^2$ )
A	0.0-2.0	+15	+7.5
B	2.0-5.0	0	0
C	5.0-7.0	-15	-7.5
D	7.0-9.0	-15	-7.5
E	9.0-11.0	0	0
F	11.0-12.0	+15	+15

