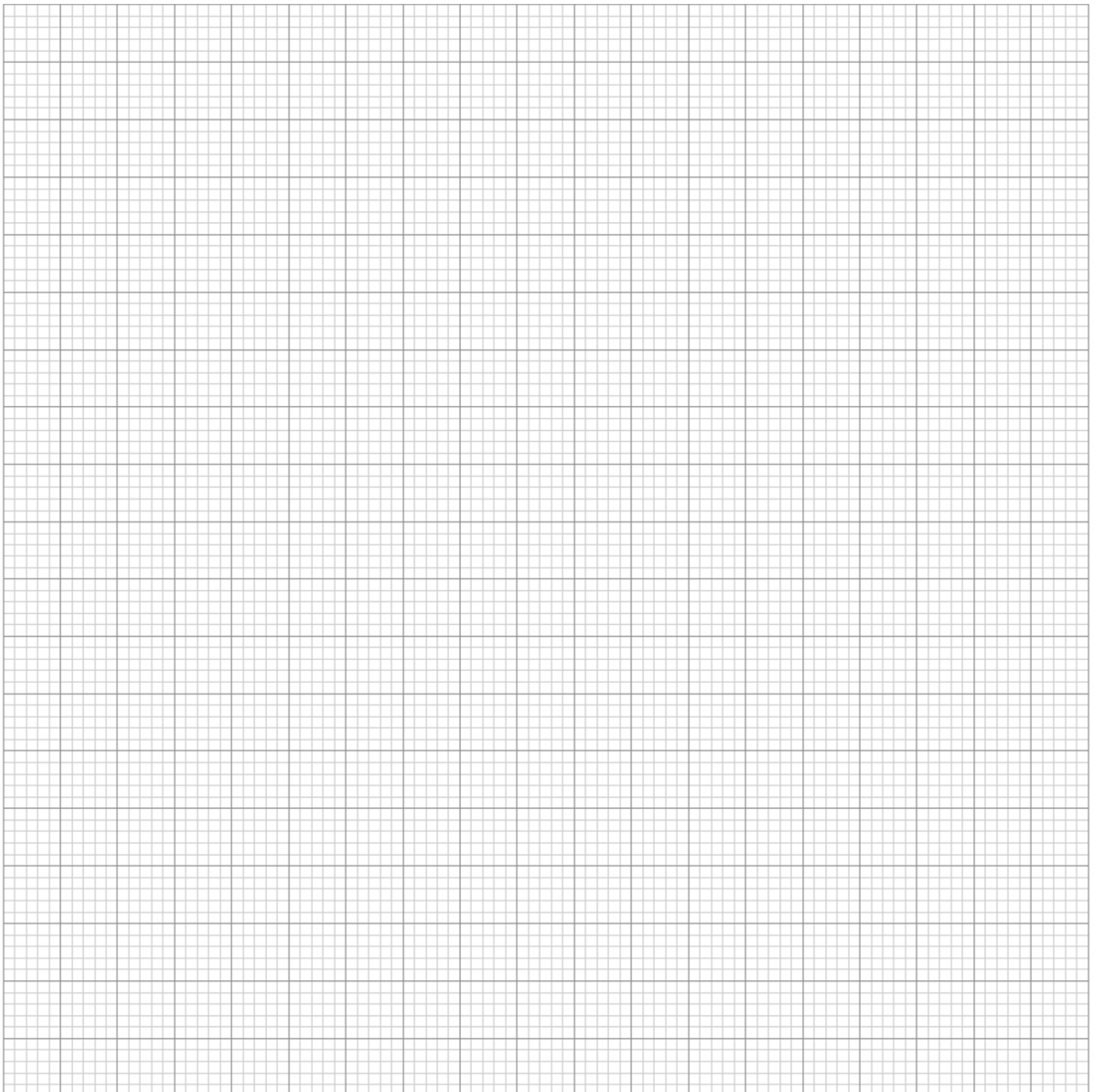


## Distance-time graph of an F1 car

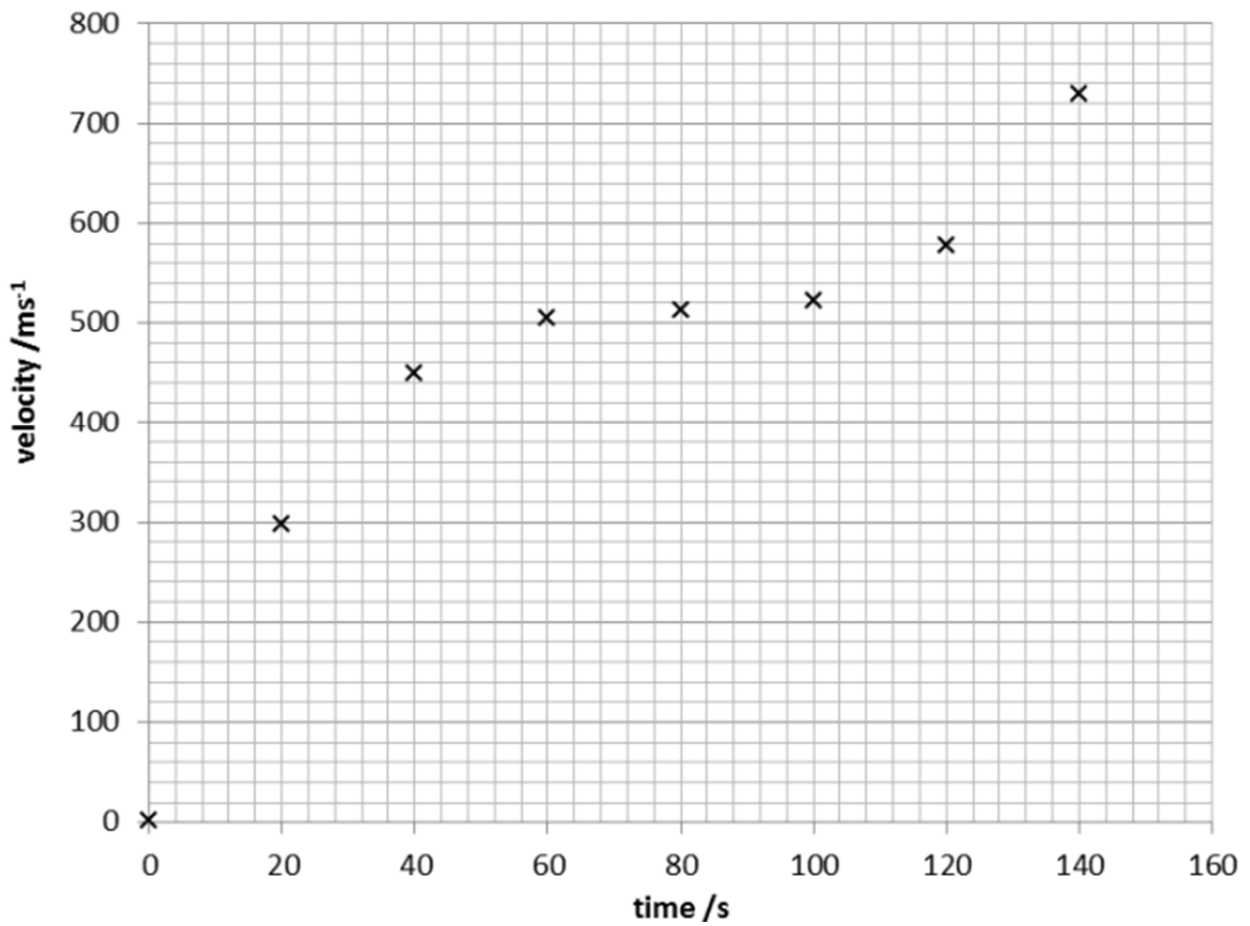
time (s)	distance (m)
0	0
1	5
2	20
3	45
4	80
5	125
6	180
7	245
8	320

1. Plot a graph of distance against time.
2. Calculate the average speed over the whole 8 seconds.
3. Calculate the instantaneous speed at
  - a) 2 seconds
  - b) 6 seconds

Extension: what is the car's acceleration?  
What would a speed-time graph of this motion look like?



Velocity-time graph of two stage rocket



1. Join the points with a smooth curve.

2. Calculate the acceleration at

a) 50 seconds

b) 130 seconds

3. Estimate the displacement of the rocket after

a) 60 seconds

b) 100 seconds.