16 The diagram shows the driving force on a sports car as it moves along a race track.

 ←——— driving force

(a) Name **two** forces that oppose the driving force.

(2)

1 ....

2 ....

(b) The car has a mass of 1400 kg.

The acceleration of the car is 5.5 m/s².

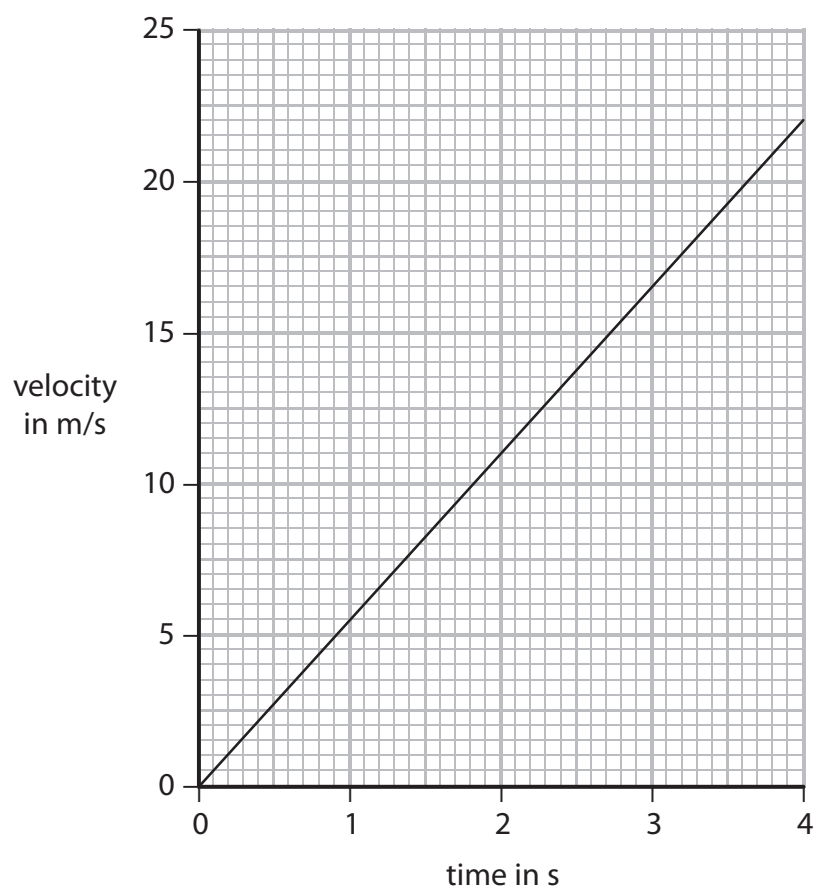(i) State the equation linking force, mass and acceleration.

(1)

(ii) Calculate the force causing this acceleration.

(2)

Force = ... N

(c) Graph **1** shows how the velocity of the car changes with time.

Graph **1**

Calculate the distance that the car travels in the first four seconds.

(3)

Distance = ... m

QUESTION 16 CONTINUES ON THE NEXT PAGE