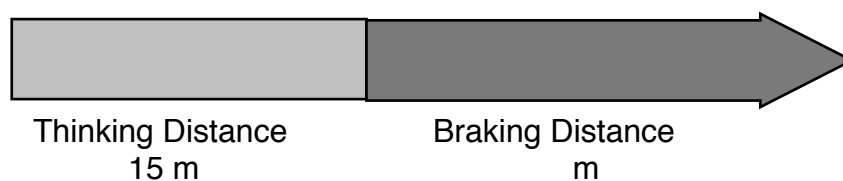1. A car driver stops her car in an emergency. The diagram below shows the factors that affect how quickly the car can stop.

Thinking Distance
15 m

Braking Distance
___ m

1. (a) The total stopping distance was 29 m. Calculate the braking distance of the car.
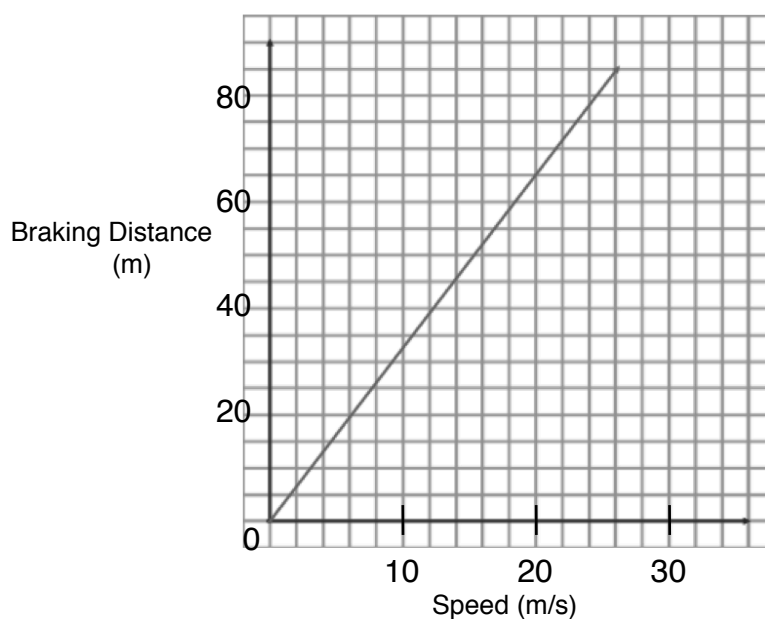
show your working.

29 - 15 [1 mark]

14 [1 mark]

Braking Distance …………………… m

(2 marks)

2. The graph below shows the relationship between speed and braking distance of a car.

2. (a) Use the graph to estimate the braking distance for a car traveling at 20 m/s.

………………………65 m [1 mark]……………………………………………………

(1 mark)

2. (b) Other than speed, name two other factors that can increase braking distance.

Any two from:

worn/damaged tyres [1 mark]   Wet conditions [1 mark]

damaged/worn brakes [1 mark]   icy conditions/roads   [1 mark]

(2 marks)

Be careful here. The question asks about braking distance and not thinking distance. Therefore you can't talk about tiredness, drugs, etc.

Total 5 marks