

The right formula

Taking driving into the classroom

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The Ultimate
Driving Machine

Driving Skills – Theme 3: Speed matters

Worksheet 3c

Stopping distance scenarios

A) A Formula driver is flagged to stop because there is a crash ahead that has blocked the track. At the time the flag is shown, the car is moving at a speed of 180km per hour. The driver's reaction time is 0.25 seconds. If the car's braking distance is 130 metres, what is the total stopping distance?

Thinking distancemetres

Braking distancemetres

Stopping distancemetres

B) A race driver driving at 120km per hour needs to come out of the track on to the pit lane because of a mechanical problem. There is a speed limit of 60mph in the pit area. How many km/hour does the driver need to reduce the car speed, to make sure it is down to the pit limit before entering the pit?

Pit speed limit.....km/hour

Speed reduction neededkm/hour

C) A driver exits a motorway at the maximum legal speed (70mph). There is a deceleration lane 50m long before reaching a road with a speed limit of 40mph. The driver's reaction time is 0.75 seconds. Will the driver manage to reach the 40mph road without breaking the speed limit?

Thinking distance (travelling at 70mph)metres

Car braking distance (the same as braking from 30mph to 0)metres

Total distance needed to reach 40mphmetres

Answer:

D) A driver needs to do an emergency stop to avoid hitting a child running into the road, about 10m ahead of him. The car is moving at a speed of 30mph. The driver's reaction time is 0.8 seconds. Will the driver manage to stop without hitting the child?

Thinking distance.....metres

Car braking distancemetres

Stopping distancemetres

Will the child be hit?