

Task 3 - POLICE REPORT

You work for the police. An accident has happened. A farmer was taking his dairy cows for milking across a road. The crossing point was 100m from a blind bend. In normal conditions with an alert driver obeying the speed limit of 30m/s a car can safely stop before reaching the crossing point. Miss Saunders was driving home, saw the cows around the bend and was unable to stop. She ran into one of the cows and killed it.

THE FACTS

1. In normal road conditions and with an alert and sober driver the car could have stopped before the crash.
2. The reaction time of an alert and sober driver is 0.6s.
3. The reaction time of a drunk driver could be 2s.
4. The initial speed of the car was 30m/s
5. From the time of applying the brakes the total braking distance in normal conditions is 70m
6. From the time of applying the brakes the total braking distance in bad conditions is 90m
7. From the time of applying the brakes in normal conditions the car would reach 15m/s in 52m

TASK

You are a forensic expert working for the police. You must analyse the facts and produce a report stating whether or not Miss Saunders was responsible for the accident.

1. Calculate the thinking distance for a car travelling at 30m/s
2. Calculate the braking distance for a car travelling in normal conditions at 30m/s
3. Calculate the total stopping distance.

REMEMBER TO SHOW YOUR WORKING OUT

Challenge:

1. Is Miss Saunders responsible for the accident?
2. Explain your answer giving CLEAR reasons for your answer and likely causes.