

On stopping distance

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1. The Department for Transport has undertaken tests how certain speed limits would affect the overall stopping distance.

Can you give more details by calculating the thinking distance and braking distance from the table below? To begin with, the values for 20 mph are already inserted. Copy the table below and fill in the remaining values.

Speed	20 mph	50 mph	70 mph	100 mph
Thinking distance / m)	6	15		
Braking distance / m	6		73.5	
Overall stopping distance / m	12	52.5	94.5	180

2. Calculate the proportion of the overall stopping distance that comes from the thinking distance and the proportion that comes from the braking distance. Copy out and fill in the table below to display your answers.

Speed	20 mph	50 mph	70 mph	100 mph
Thinking distance ... % of overall stopping distance				
Braking distance ... % of overall stopping distance				

3. Use your tables to answer the following questions.
 - (a) Do thinking distance and braking distance equally influence the overall stopping distance? Explain.
 - (b) How do thinking distance and braking distance influence the overall stopping distance at low and high speeds?



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