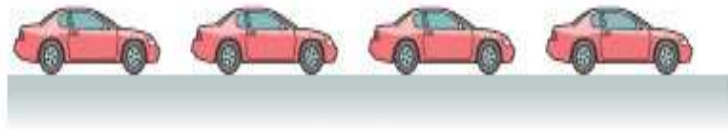


Three motion diagrams are shown. Which is a dust particle settling to the floor at constant speed, which is a ball dropped from the roof of a building, and which is a descending rocket slowing to make a soft landing on Mars?

- | | | | |
|---------|---------|---------|--|
| (a) 1 ● | (b) 1 ● | (c) 1 ● | 1. (a) is dust, (b) is ball, (c) is rocket |
| 2 ● | | | |
| 3 ● | 2 ● | | 2. (a) is ball, (b) is dust, (c) is rocket |
| | | 2 ● | |
| 4 ● | 3 ● | | 3. (a) is rocket, (b) is dust, (c) is ball |
| | | 3 ● | |
| 5 ● | 4 ● | | 4. (a) is rocket, (b) is ball, (c) is dust |
| | | 4 ● | |
| | 5 ● | | 5. (a) is ball, (b) is rocket, (c) is dust |
| | | 5 ● | |
| 6 ● | 6 ● | 6 ● | |

Which car is going faster, 1 or 2? Assume there are equal intervals of time between the frames of both movies.



Car 1



Car 2