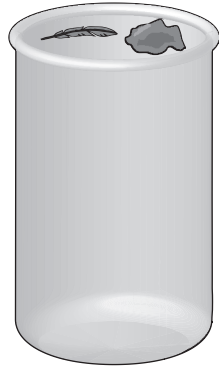


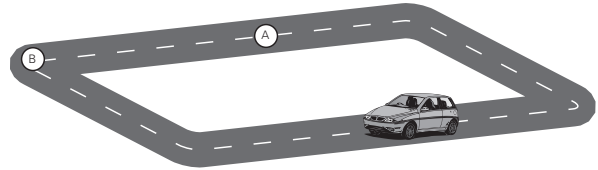
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Conceptual Problems about Acceleration



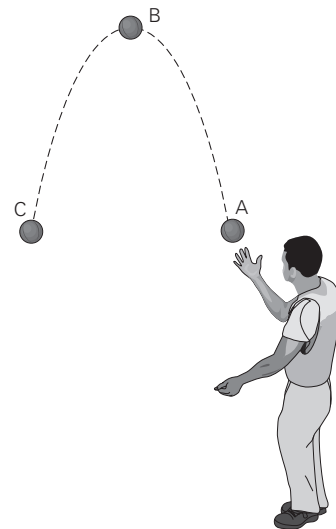
1. A feather and a rock are dropped at the same time from the same height inside a tube. If there is air in the tube, which will land first? If there is no air in the tube, which will land first? Why?



2. A car drives around a track at a constant speed. Is the car accelerating at point **A**? Is it accelerating at point **B**? Why?



3. A person drops a rock off the side of a cliff. What will the rock's velocity be after 3 s? What will the rock's velocity be after 6 s? Assume there is no air resistance.



4. A person throws a ball straight up in the air. At point **A**, the ball's velocity is 15 m/s upward. What is the ball's velocity at points **B** and **C**? What is the ball's acceleration at points **A**, **B**, and **C**?