1) An airplane leaves New York to fly to Los Angeles. It travels $3,850 \mathrm{~km}$ in 5.5 hours. What is the average speed of the airplane?
2) The law of universal gravitation says all bodies attract each other. If you drop a cup, it falls to Earth. Why doesn't the gravitational attraction between your hand and the cup keep the cup from falling?
3) This distance-time graph shows the speeds of four toy cars


Which car is the fastest?
4) The diagram below shows the forces acting on a sneaker. As the force $F$ is applied, the sneaker does not move.


Which statement below correctly describes the forces?
A. The net force is acting in an upward direction.
B. The net force is acting to the left.
C. The net force is moving to the right.
D. The net force is zero and all the forces are balanced.

## Unit 1 Review

5) Julia is in a car with her father. The car is undergoing centripetal acceleration. What is happening to the car?
A. The car is changing direction at a constant speed.
B. The car is changing direction and speeding up.
C. The car is stopping suddenly.
