NEXT-TIME QUESTION

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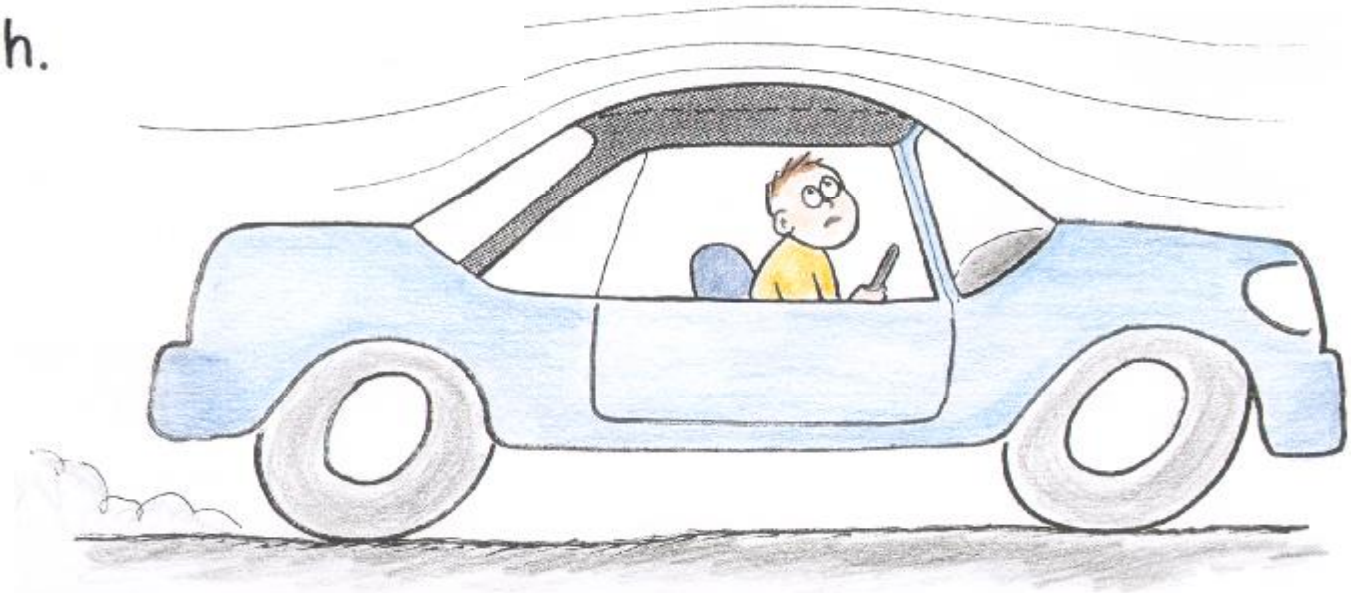
a) Bernoulli's principle.

b) Newton's laws.

c) Both.



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Answer: a. Bernoulli's principle

In accord with the principle of continuity, a fluid gains speed when it flows into a constricted region. Your car, convertible or otherwise, somewhat constricts the flow of moving air, so air moving over the top speeds up. What happens to the pressure in a fluid when it gains speed? Bernoulli's principle provides the answer: *pressure decreases*. Reduced atmospheric pressure on the top of the fabric with no reduction in air pressure beneath, inside the car, produces a pressure difference on the fabric and it puffs upward. Cheers for Bernoulli!

Newton's laws? Always valid but not the reason here! The second law? Nope, because the air inside the car experiences no net force and no acceleration. The third law? It's at work as the stretched fabric of the top pulls down to match the net upward force of the air, but it's not the *reason* for the bulging top.

Hewitt Drewit!