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Student:

Newton's First Law of Motion

The Ice Cream Cone problem. There's no numbers to crunch this week. Just write up what thoughts the problem brings to your mind.

Part 1: Solid Ice Cream

Imagine you're enjoying an ice cream cone on a hot day. Initially, the ice cream is stationary, and you're about to take your first bite. Answer the following:

Explain why the stationary ice cream remains in place in your cone until you decide to take a bite. Use Newton's First Law of Motion to clarify.

Part 2: Melting Ice Cream

Now, consider a different scenario. The ice cream in your cone has melted slightly, but it is still relatively solid. Answer the following:

As you hold the ice cream cone, you notice that the melting ice cream starts to slowly slide downward along the cone. Explain why the melting ice cream moves downward instead of remaining stationary. Use Newton's First Law of Motion to provide insight.