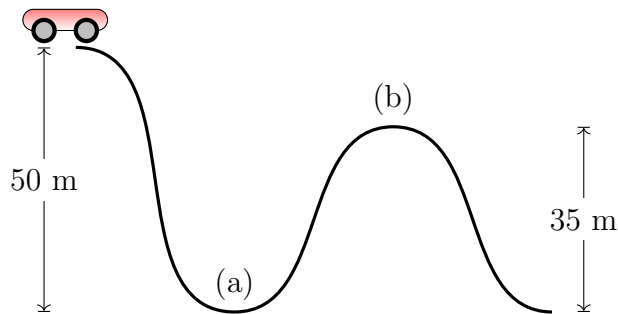


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A rollercoaster ( $m = 1000 \text{ kg}$ ) starts from rest at the top of a 50 m hill. The tracks are frictionless.

- (a) If the hill goes all the way down to the ground, how fast should it be going at that point?
- (b) Next, the rollercoaster continues to the top of the next hill, which is 35 m high. What is its velocity at the top of the next hill?



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