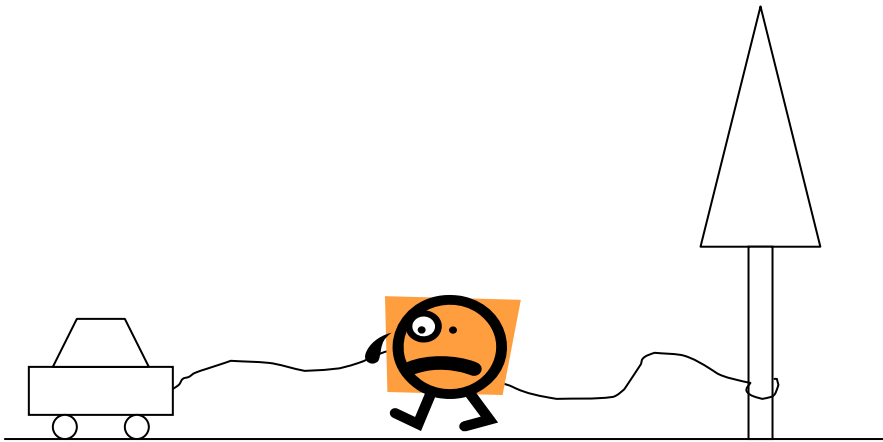


Assume a driver is stuck in the mud, a force of 2,000.0 Newtons is needed to pull the car out. The driver tied the car to a tree 10.0 meters away with a rope whose length is 10.2 meters. He/she pulled at the center of the rope toward sideways with a force of 800.0 Newtons.

- Is it possible to pull the car out with his/her 800.0 Newtons force?
- Draw a free body diagram for the car.
- Draw a free body diagram for the center point of the rope. (you can assume you tied a small flag there.)
- Why or why not the person can pull the car out? Show your calculations in detail as your explanation.



(To help you set up the question, you may start from the top-view of this question, as shown below.)

