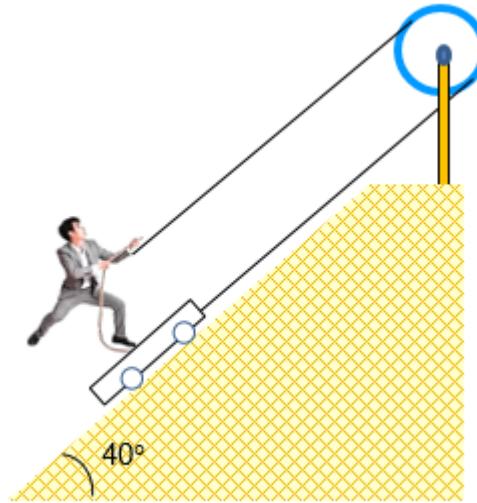


- 5 In the figure below, Tom loosens his grip on a rope slightly to allow the rope to slip through his hands, and this enables him and the trolley to accelerate down an inclined plane together at 0.50 m s^{-2} . Tom and the trolley have a mass of 70 kg and 10 kg respectively and there is no relative motion between Tom and the trolley. The incline is 40° to the horizontal and the pulley is frictionless.



What is the tension in the rope?

- A 230 N B 280 N C 370 N D 460 N