Two almost identical aluminum cylinders are to roll down an incline together. One rolls without sliding, while the other slides without friction (approximately) on tiny ball bearings mounted at one end of the cylinder.



Suppose that they are started together from rest at the top end of an inclined plane. Who gets down faster?

- (1) The rolling cylinder.
- (2) The sliding cylinder.
- (3) They will get to the bottom at the same time.