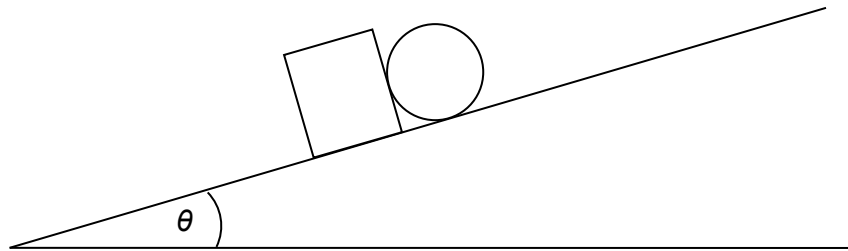**6** A block and a sphere of equal mass *m* are placed on an inclined plane. If the maximum frictional force that can exist between the block and the plane is equal to the weight of the block, and there is no frictional force between the sphere and the plane, what is the maximum angle θ at which the plane can be inclined before the block starts to slip?

A 30° **B** 45° **C** 60° **D** 73°