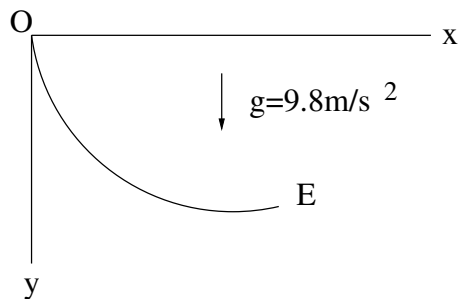## [mex31] Brachistochrone problem II

A particle of mass m slides from rest at the origin of the coordinate system down to the point E along a frictionless path. (a) Use the calculus of variation to determine the path along which the particle arrives at E in the shortest time. (b) Determine the time it takes the particle in [mex30] to travel from A to C along a path such as found in (a).

Solution: