## Homework H.4.G

Given: The collar, shown below, of mass $m$, starts from rest at point A. A constant force $F$ is applied to the collar in the direction shown. Note that the mechanism lies in the vertical plane. Assume all surfaces to be smooth.

Find: Determine the speed of the collar when it reaches point B.


Please leave your answer in terms of, at most, $m, g, F$ and $r$.

