4. Ball *(6 points)* Massive spherical ball has a mass $M = 100\,\mathrm{kg}$; an attempt is made to roll the ball upwards, along a vertical wall, by applying a force F to some point P on the ball. The coefficient of friction between the wall and the ball is $\mu = 0.7$.

i) (5 pt) What is the minimal force F_{min} required to achieve this goal?

ii) (1 pt) On a side view of the ball and the wall, construct geometrically the point P, where the force has to be applied to, together with the direction of the applied force.