Question 30456

For circular motion acceleration is calculated as $a=\frac{v^2}{R}$. The more radius is, the less the acceleration is. According to the conditions of the task, minimal radius of the curvature corresponds to $a_1=9g\left(g=9.81\frac{m}{s^2}\right)$ (for higher values of radius, acceleration will be lower and human will be able to deal with it physically). From formula for acceleration obtain $R_{min}=\frac{v^2}{a_1}=\frac{v^2}{9g}\approx 518.2m$.