

A piece of clay is stuck to the edge of a potter's wheel. Draw a diagram to show the path of the clay if it comes unstuck while the wheel is rotating

Solution:

When piece of clay comes unstuck, it has a linear velocity $V = \omega R$ (ω – angular velocity of the wheel, R – radius of the wheel). Hence, the trajectory of the piece will be parabola (velocity V along X-axis and acceleration g across Y-axis):

