

ACT

Fred throws a ball 30 mph vertically upward and then catches it again at the same height he threw it from. What is the speed of the ball when he catches it? (Neglect air resistance)

- 1) $v < 30$ mph 2) $v = 30$ mph 3) $v > 30$ mph

$$\blacktriangleright v_y^2 = v_{y0}^2 - 2g(y - y_0)$$

$$\blacktriangleright v_y^2 = v_{y0}^2$$