

3. The height, $h(t)$ (height in metres, time in seconds), of a baseball thrown out of a window is modelled by the function: $h(t) = -5t^2 + 20t + 15$. A paintball champion tries to shoot the baseball with a paintball gun as it falls from the window. If the trajectory of the paintball is given by $p(t) = 3t + 3$, will the paintball hit the baseball? If it does, at what time and height is the baseball hit?