

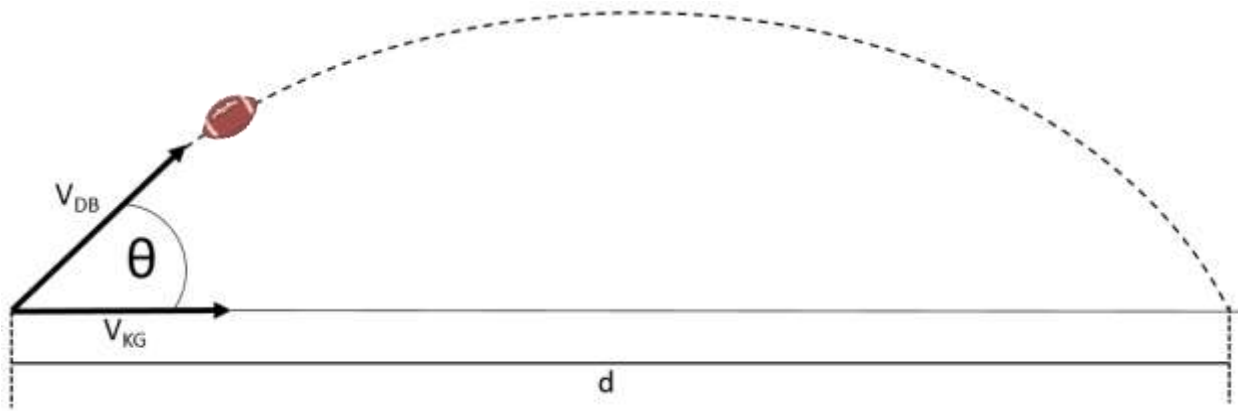
GNG 1105D

Bonus Assignment

Question:

During the 2019 thanksgiving football game between the Detroit Lions and the Chicago Bears, rookie Lions quarterback David Blough made his first ever NFL completion to wide receiver Kenny Golladay. Assuming David Blough throws the ball at the exact same time and location that Kenny Golladay starts running at full speed, at what distance (d) will Kenny Golladay receive this pass?

David Blough can throw the ball at a velocity of  $V_{DB}=88$  km/h and Kenny Golladay can run at a top speed of  $V_{KG}=32$  km/h. State all assumptions clearly.



$$\begin{array}{l}
 x = x_0 + vt \\
 v = v_0 + at
 \end{array}
 \quad
 \begin{array}{l}
 x = x_0 + v_0t + \frac{1}{2}at^2 \\
 v^2 = v_0^2 + 2a(x - x_0)
 \end{array}
 \quad
 \sum \vec{F} = m\vec{a}$$