d. When does a Nolan thrown snowball hit the ground?

\[
\begin{align*}
-16t^2 + 96t + 144 &= 0 \\
-16 &= \\
t^2 - 6t - 9 &= 0
\end{align*}
\]

e. Find the maximum height of a Nolan thrown snowball. What time does this happen?