4. The velocity, \( v \), of a particle \( P \) at time \( t \) is given by

\[
v = e^{3t} + 2e'.
\]

Find the distance covered by \( P \) between \( t = 0 \) and \( t = \ln 3 \).

Answer

\[
Distance \ Covered \ by \ P = 12 \frac{2}{3}
\]