The final velocity of a traveling object is given by the formula, \( v = u + at \)

where \( v \) is the final velocity
\( u \) is the initial velocity
\( a \) is the acceleration
and \( t \) is the time.

Given \( u = 5.4\text{m/s} \) correct to 1 decimal place
\( a = 4.9\text{m/s}^2 \) correct to 1 decimal place
\( v = 25.32 \) correct to 2 decimal places

Calculate the upper bound for \( t \).

Calculate the lower bound for \( t \).

Given that
\[
\overrightarrow{YD} = 6\alpha - \frac{1}{2}c
\]

Find the value of \( k \).

OABC is a parallelogram

\( \overrightarrow{OA} = a \quad \overrightarrow{OC} = c \)

\( Y \) is the midpoint of \( AC \)
OAD is a straight line where
OA:AD = \( m : 1 \)

Prove that \( 3n(3n + 4) + (n - 6)^2 \) is positive for all values of \( x \).