

17/ENG05/009

command window

clear

clc

syms v

v = 0.5;

for i = 1:50

iter(i+1) = i

$v(i+1) = (((34.3 + 0.02 * v(i)) * (500 + \log(v(i) \wedge 3))) / 0.3) \wedge (1/2)$

$Ea(i+1) = \text{abs}((x(i+1) - x(i)) / x(i+1)) * 100$

if $Ea(i+1) \leq 1E-11$, break

end

tablo = [iter' x' Ea']

v converges at value 304.0675323

$\therefore v = 304.0675323 \text{ m/s}$