

Ans (i)::

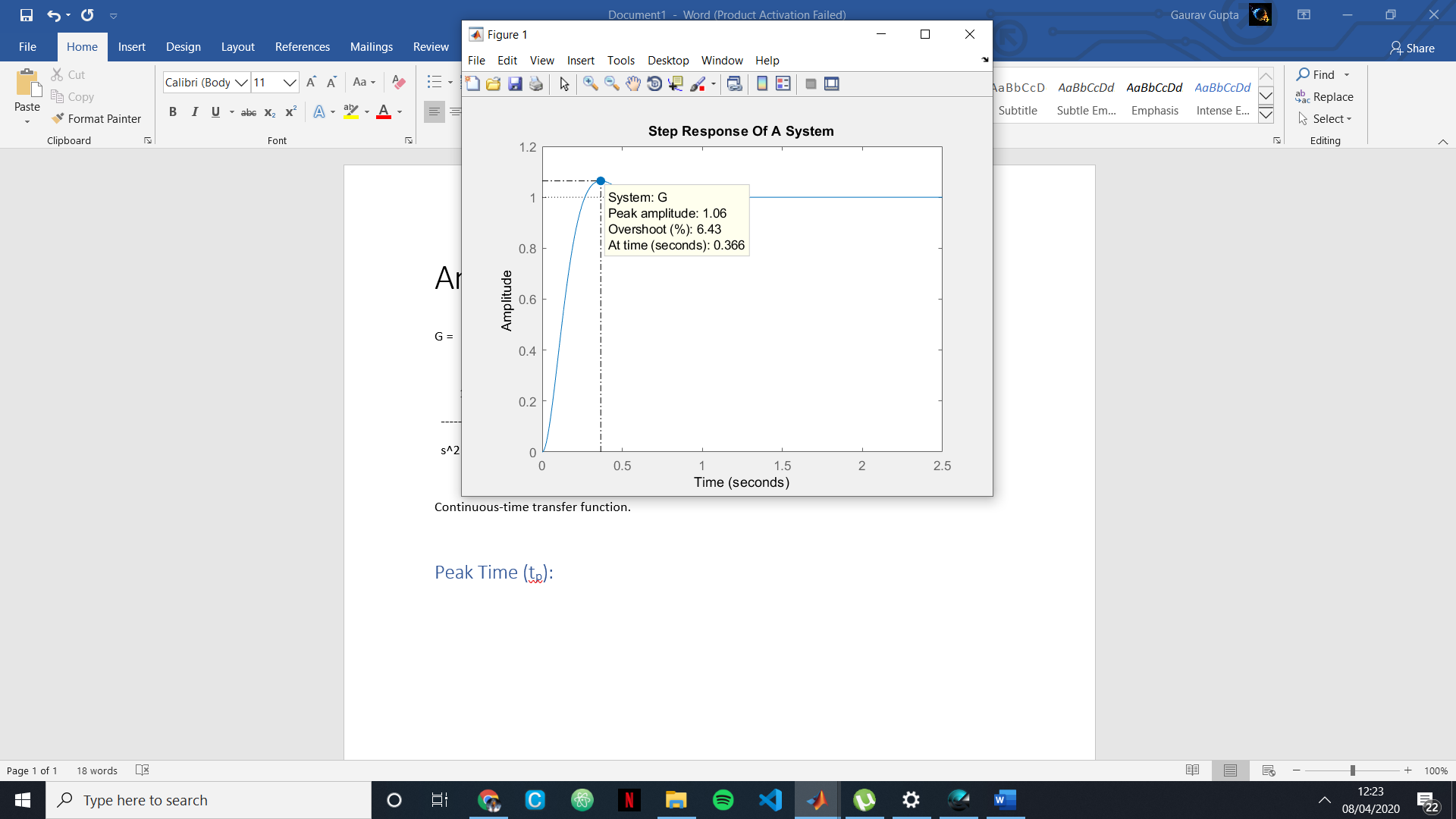
130

G = ----------------

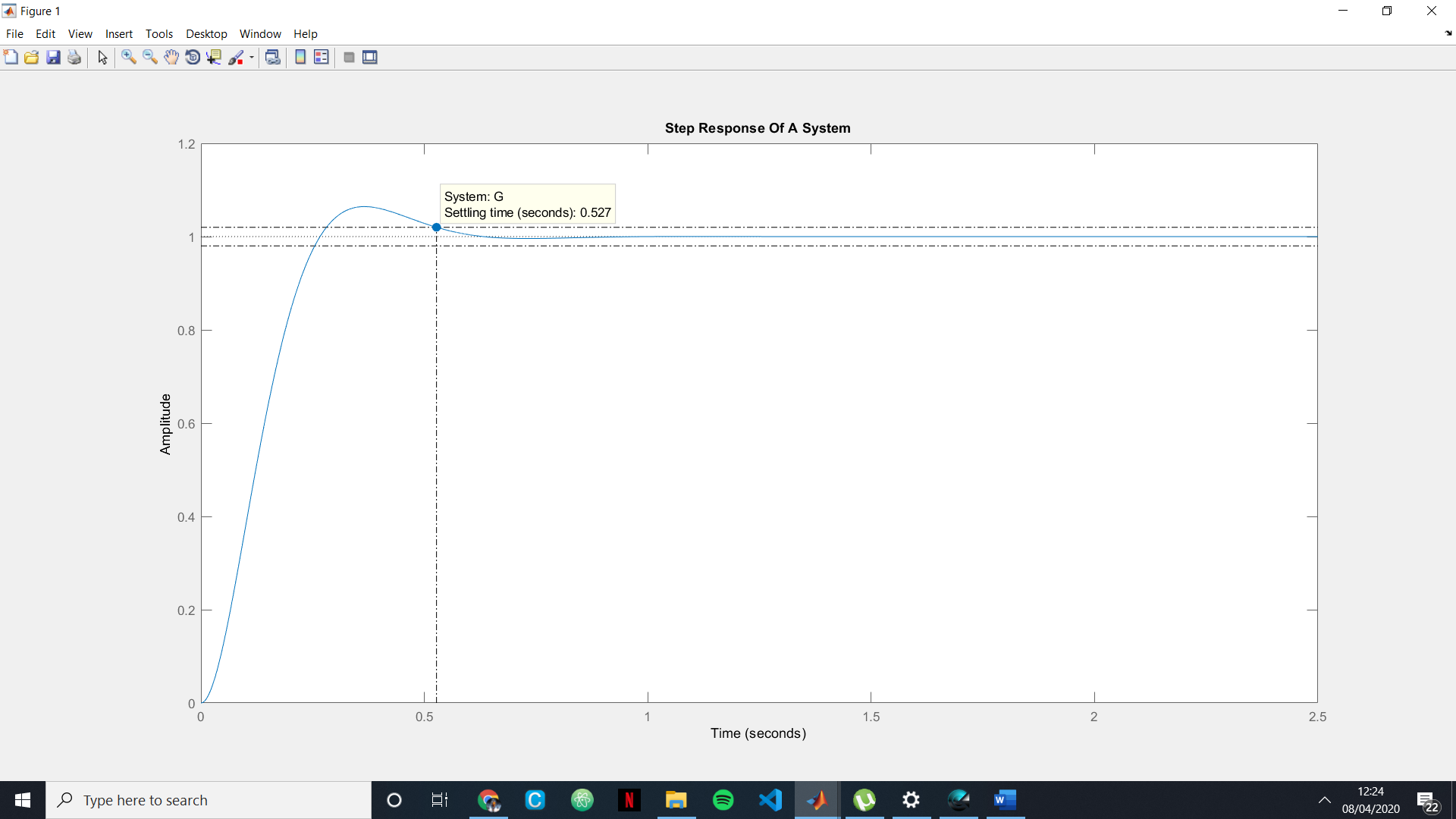
s^2 + 15 s + 130

## Continuous-time transfer function

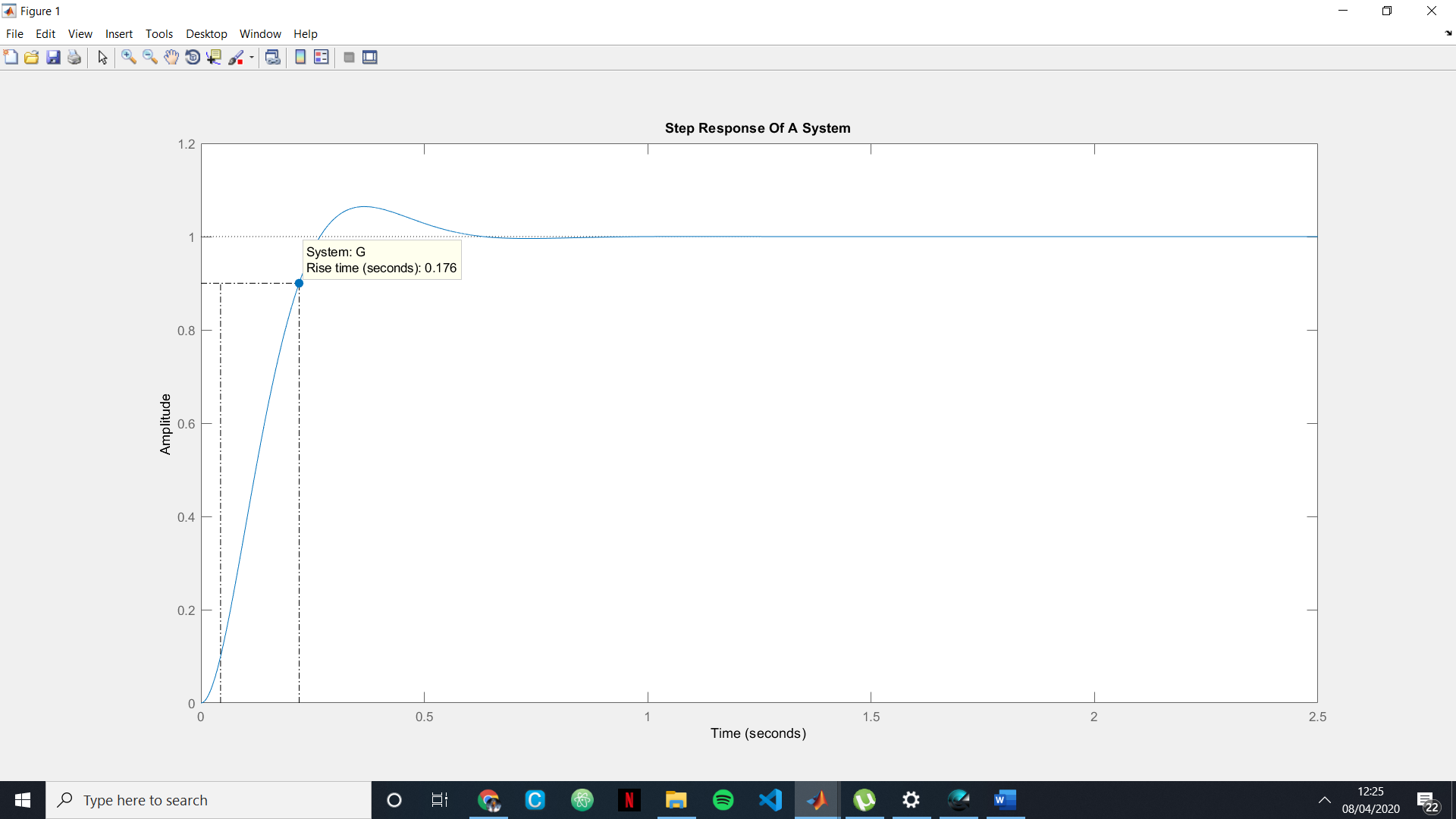
# Peak Time (tp):



# Settling Time (ts):



# Rise Time (tr):



# Percentage Overshoot : Mp= 6%;

Ans (ii)::

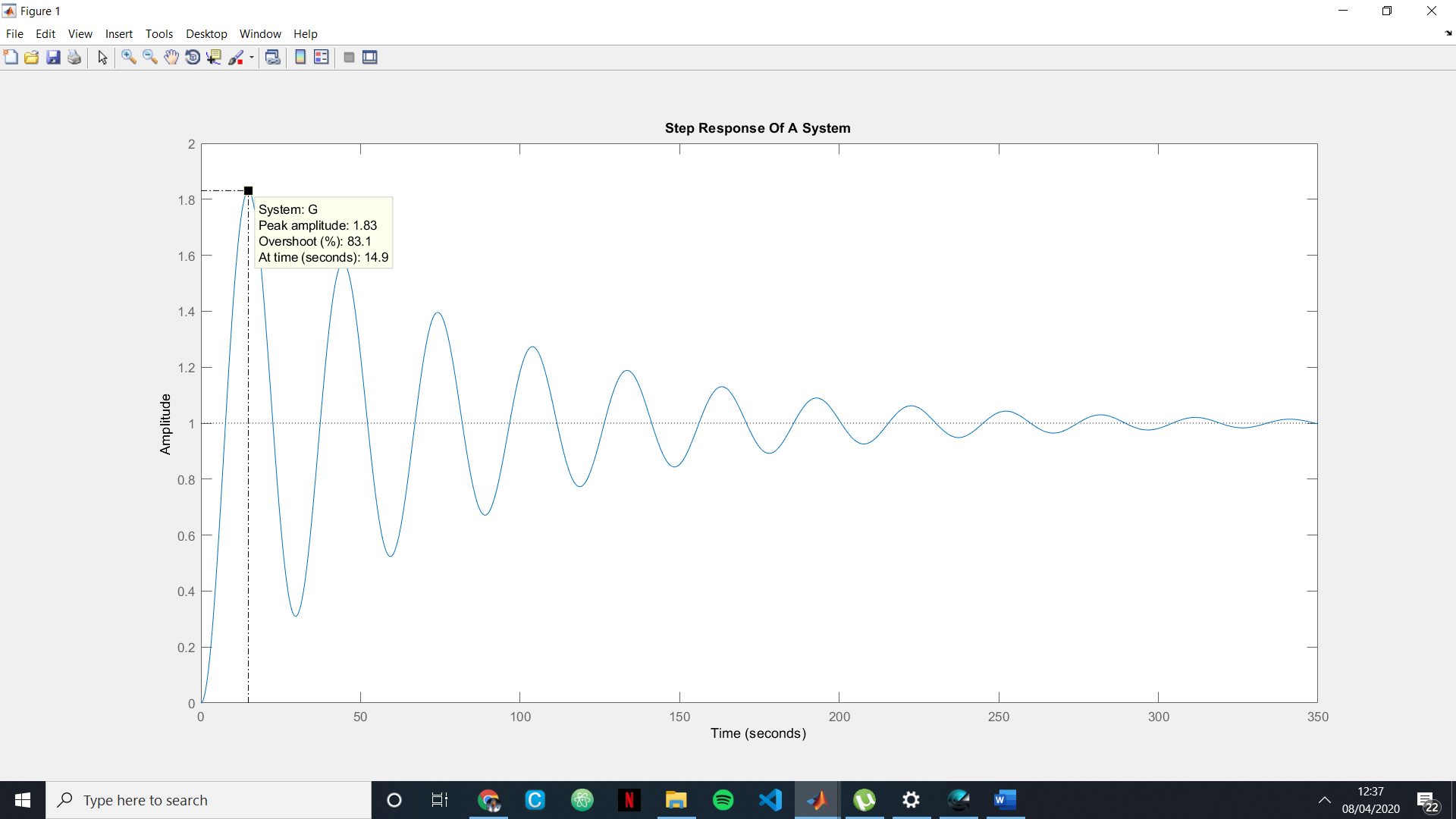
0.045

G = -------------------------

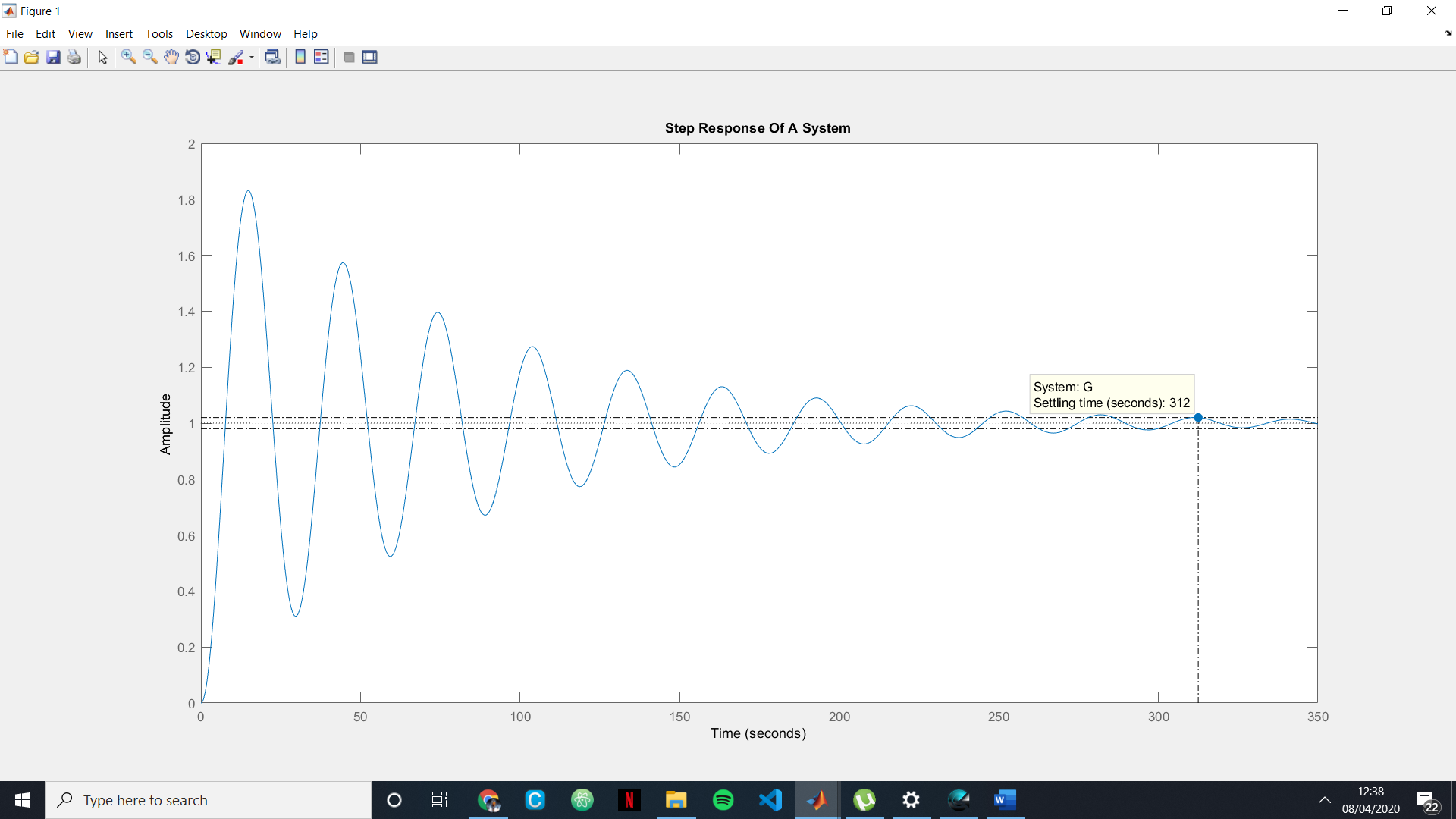
s^2 + 0.025s + 0.045

Continuous-time transfer function.

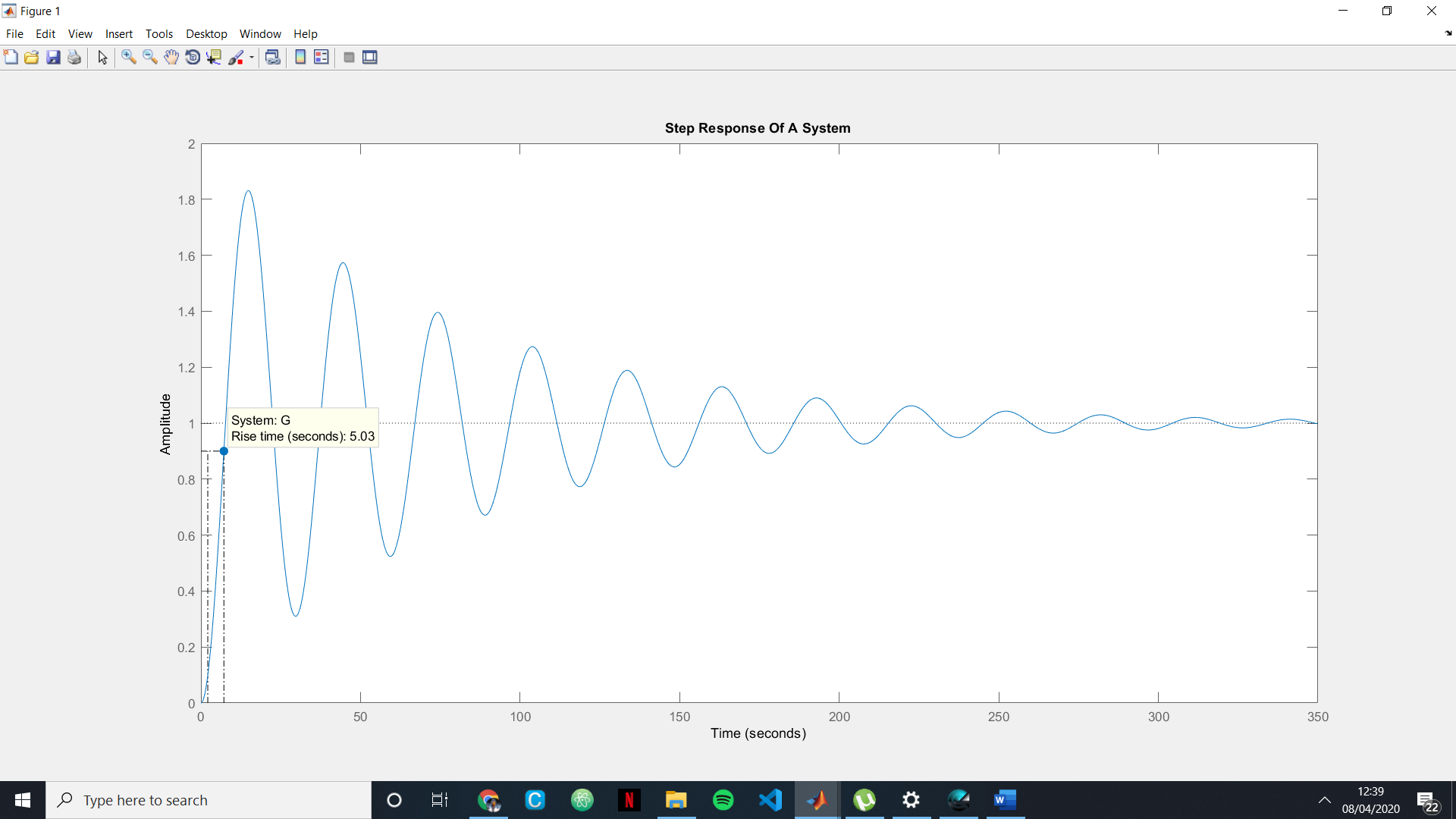
# Peak Time (Tp):



# Settling Time (ts):



# Rise Time (tr):



# Percentage Overshoot : Mp= 83%;

Ans (iii):

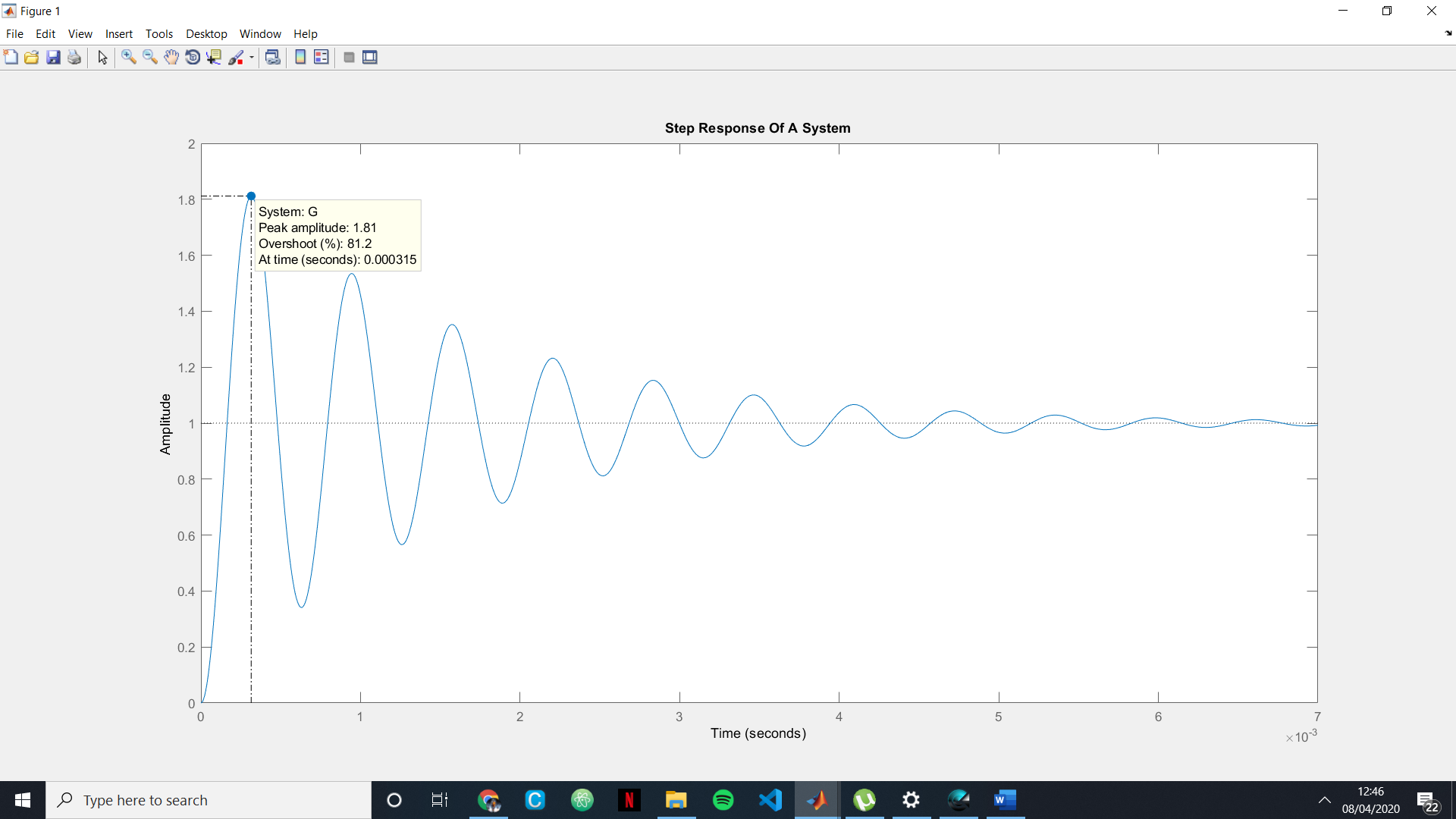
108

G = -------------------

s^2 + 1.325\*103 s + 108

Continuous-time transfer function.

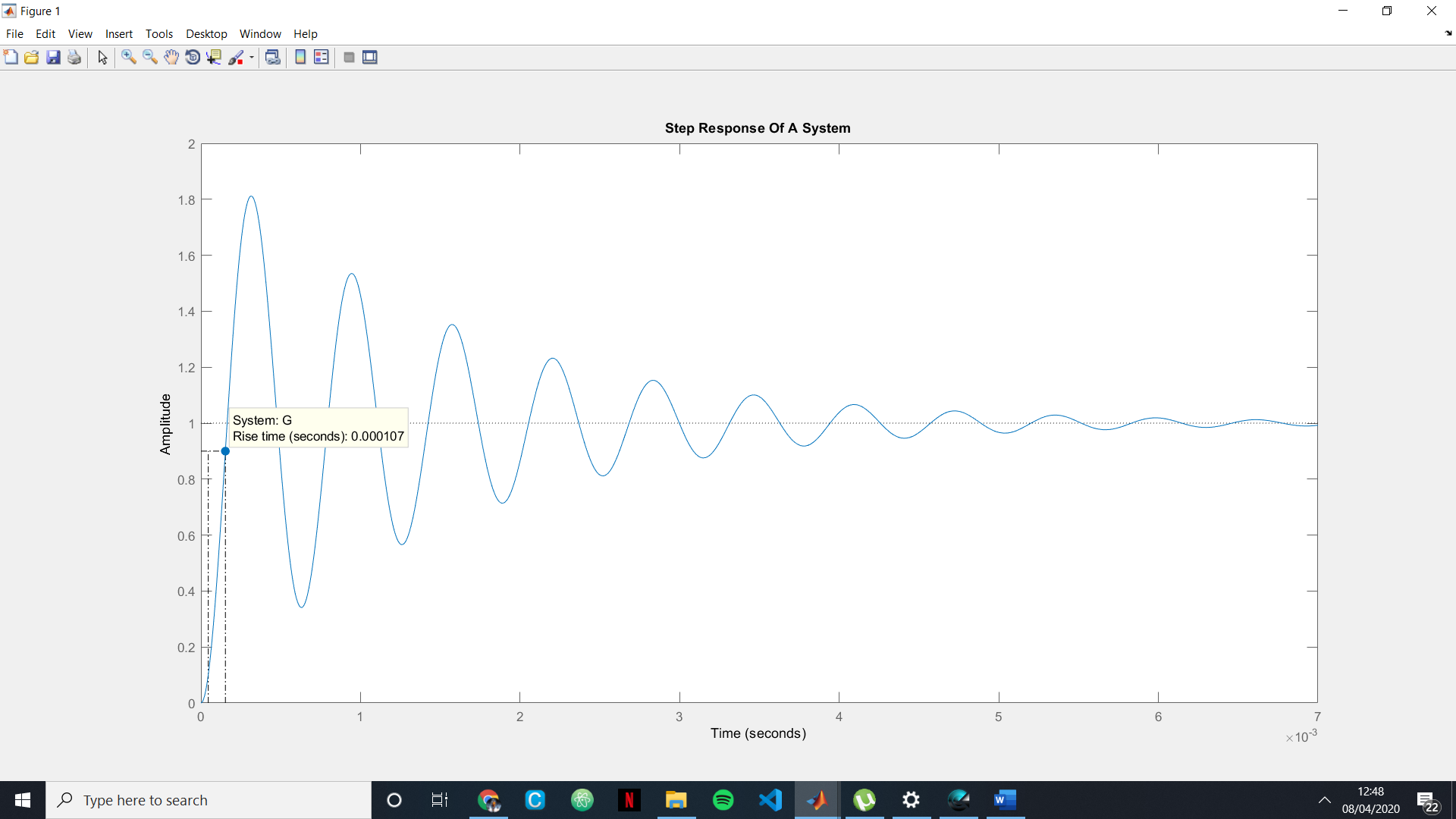
# Peak Time (Tp):



# Settling Time (ts):

# 

# Rise Time (tr):



Percentage Overshoot :Mp=  81.2%;