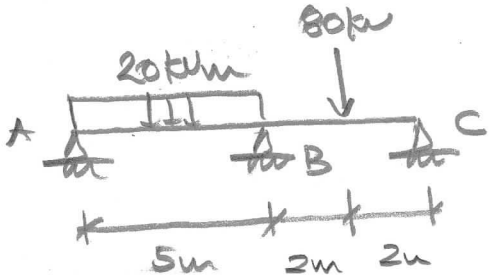
B2T4MA0003A 04 PONTOS ⇒ APLICAÇÃO DO "MD";



$EI = 20000\ kN/m^2$

D1: ROTAÇÃO DO PONTO B

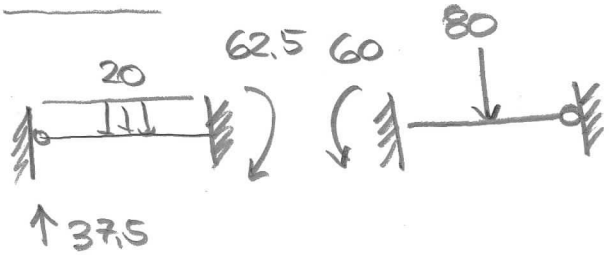
Q01) F10 EM MÓDULO [kN; m]

Q02) k11 " "

Q03) ROTAÇÃO EM B [rad ⊕ ↺]

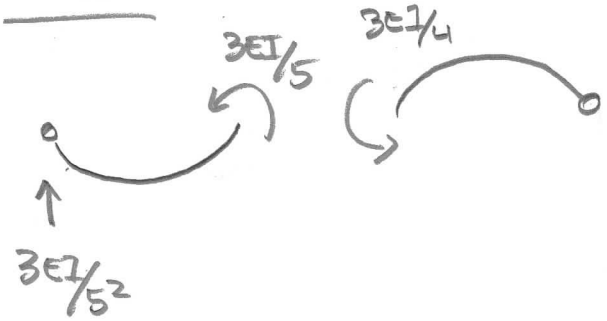
Q04) VA [kN e ⊕ P/CIMA]

CASO 0



$F10 = 60 - 62,5 = \underline{-2,5\ kN\,m}$ Q01

CASO 1



$k11 = \frac{27}{20} EI = \underline{27000\ kN\,m/rad}$ Q02

COND. DE EQUILÍBRIO: $D1 = -F10/k11 = +2,5/\frac{27}{20}EI$

$D1 = \frac{+50}{27EI} = \underline{+0,000092593\ rad}$ Q03

SOBREPOSIÇÃO DE EFEITOS!

$VA = 37,5 + \frac{3}{5^2}EI \times \frac{50}{27EI} = \underline{37,722\ kN\ \uparrow}$ Q04