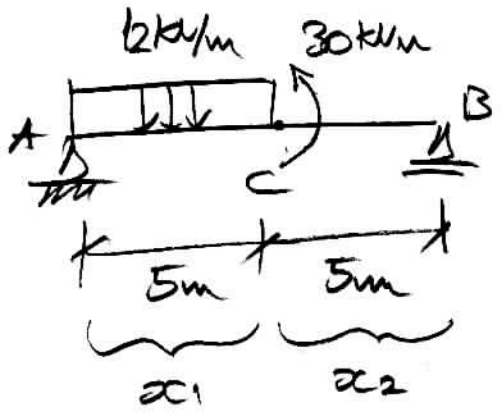
TE1-3.6



$\curvearrowright \overset{+}{\sum} M_B = 0$

$V_A \times 10 - 12 \times 5 \times 7{,}5 - 30 = 0$

$V_A = \frac{1}{10}(30 + 60 \times 7{,}5) = \underline{48\,kN}\uparrow$

$\uparrow \overset{+}{\sum} F_V = 0$

$48 - 12 \times 5 + V_B = 0$

$V_B = 60 - 48 = \underline{12\,kN}\uparrow$

$M_{AC}(x_1) = 48x_1 - 12\frac{x_1^2}{2} = \underline{48x_1 - 6x_1^2}$ } x_1 $[0;5]$ $\{0;5\}$

$Q_{AC}(x_1) = \underline{48 - 12x_1}$

$M_C^{ESQ} = 48 \times 5 - 6 \times 5^2 = 90\,kNm$

$Q_C^{ESQ} = 48 - 12 \times 5 = -12\,kN$

$M_{CB}(x_2) = 90 - 30 - 12 \cdot x_2 = \underline{60 - 12x_2}$ } x_2 $[0;5]$ $\{5;10\}$

$Q_{CB}(x_2) = \underline{-12}$