MEEG 3013 Quiz #10

A beam with constant flexural rigidity $EI$ is supported and loaded as shown. Using conjugate beam method, determine for this beam (a) the reaction $A_y$ at $A$, (b) the slope $\theta_A$ at $A$, (c) the slope $\theta_C$ at $C$, (d) the deflection $y_C$ at $C$.

![Drawing of conjugate beam]

\[
A_y = \frac{7w_0L}{64} \quad \text{(2)} \\
\theta_A = -\frac{5w_0L^3}{96EI} \quad \text{(2)} \\
\theta_C = \frac{w_0L^3}{384EI} \quad \text{(2)} \\
y_C = -\frac{13w_0L^4}{384EI} \quad \text{(2)}
\]