Problem Statement: Use the conjugate-beam method and determine the slope and deflection at C. A is a pin and B is a roller, and EI is constant.
The computer model uses $E=29000.02\,\text{ksi}$ and $I=119\,\text{in}^4$.

This brings the total deflection to be $50625(12^3)/(29000.02*119) = 25.3492$ in. The model shows this exactly:

And the total slope is:

$3938(12^3)/(29000.02*119)=0.164$

The program solutions match mine exactly. From the results we can see the shape of the beam after deflection (the orange line). Also, the beam will deflect 25.35 inches downward at point C, with a slope of 0.164 radians.