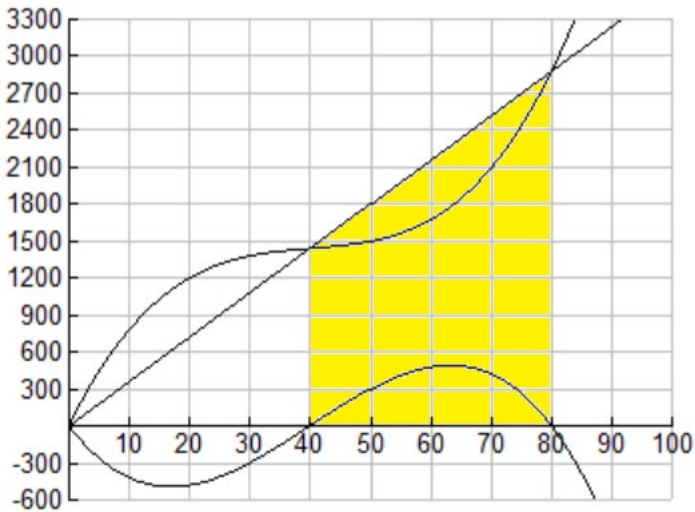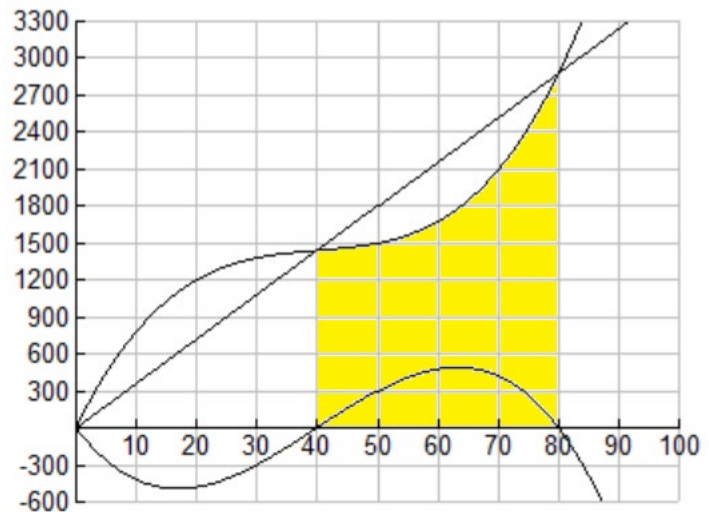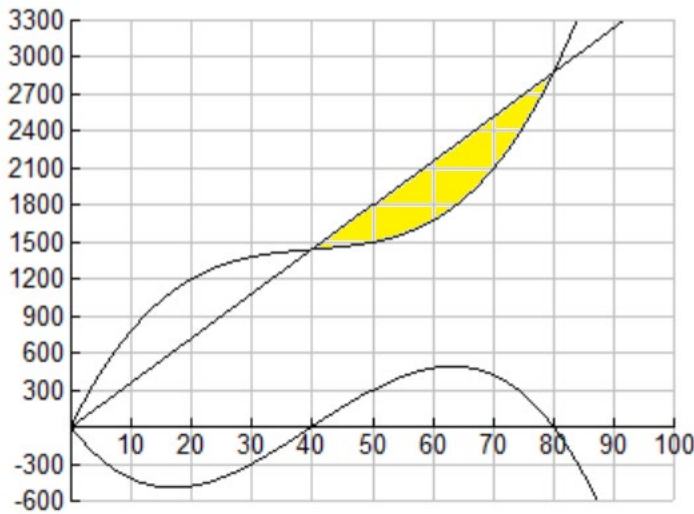## Areas Between Curves (Section 5.4)

The cost function $C(x) = .02x^3 - 2.4x^2 + 100x$, the revenue function $R(x) = 36x$, and the profit function $P(x) = C(x) - R(x)$ are shown below. Enter these three functions in your grapher. Write definite integrals and find the following areas.
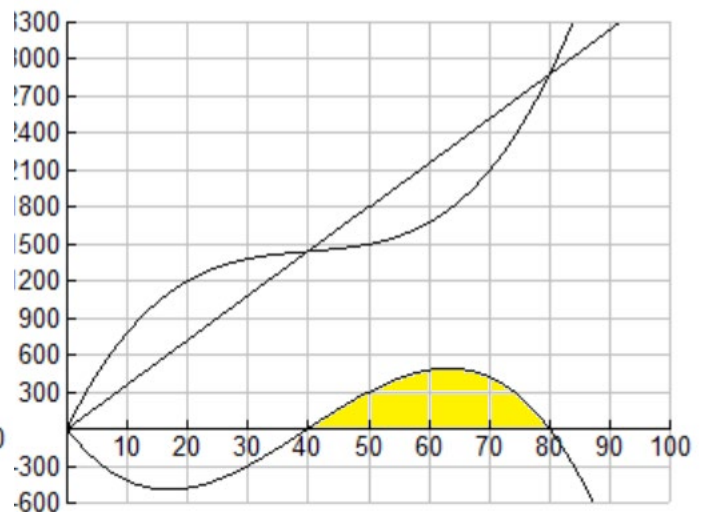

a. $\displaystyle\int_{\square}^{\square} ($ _____ $)\,dx =$ ____

b. $\displaystyle\int_{\square}^{\square} ($ _____ $)\,dx =$ ____

c. $\displaystyle\int_{\square}^{\square} ($ _____ $)\,dx =$ ____

d. $\displaystyle\int_{\square}^{\square} ($ _____ $)\,dx =$ ____

e. What is true about your answers in part c and d?