8. [6 points] Suppose that $\int_{-3}^{8} f(x)dx = 5$. Use this information to determine the values for the constants $a, b,$ and k that you are certain will satisfy the definite integral $\int_{a}^{b} kf(2x)dx = 5$. Write your answers on the spaces provided. You do not need to show your work for this problem.

$a =$_____ $b =$_____ $k =$_____

9. [6 points] Suppose $f(x) = f'(x) + 3$. Determine the EXACT value of $\int_{0}^{1} e^x f'(x)dx$ given that $f(0) = 1$ and $f(1) = 4$. Be sure to show enough work to support your answer.