1. Let $f(x) = 3x$ and $a = 0$. Then $A_f(x) = \int_0^x 3t\ dt$.

   (a) Find $A_f(0)$, $A_f(2)$, $A_f(-3)$

   (b) Find a formula for $A_f(x)$. How is A_f related to f?

2. Let $f(x) = 3x$ and $a = -1$. Then $A_f(x) = \int_{-1}^x 3t\ dt$.

   (a) Find $A_f(0)$, $A_f(2)$, $A_f(-3)$

   (b) Find a formula for $A_f(x)$. How is A_f related to f?

3. How are your answers to #1 and #2 related?

4. Let $f(x) = 3x + 2$ and $a = 0$. Then $A_f(x) = \int_0^x 3t + 2\ dt$.

   (a) Find $A_f(0)$, $A_f(2)$, $A_f(-3)$

   (b) Find a formula for $A_f(x)$. How is A_f related to f?