1. Let \( R \) be the region between the graph of \( y = x^2 \) and \( 6 + x = 2y \).

Then \( \int \int_R f(x, y) \, dA = \int_C^D \int_A^B f(x, y) \, dy \, dx \).

- where \( A = \frac{x^2}{2} \) and \( B = \frac{x}{2} + 3 \)
- while \( C = \frac{-3}{2} \) and \( D = 2 \)

2. If you reverse the order of integration of \( \int_0^1 \int_{2y}^{\sqrt{y}} f(x, y) \, dx \, dy \)

then you will obtain an iterated integral \( \int_C^D \int_A^B f(x, y) \, dy \, dx \).

- where \( A = \frac{x^2}{2} \) and \( B = \frac{x}{2} \)
- while \( C = 0 \) and \( D = \frac{1}{2} \)
1. Let $R$ be the region between the graph of $y = x^2$ and $6 + x = 2y$. Then $\iint_R f(x, y) \, dA = \int_C^D \int_A^B f(x, y) \, dy \, dx$.

   - where $A = \chi^2$ and $B = \frac{x}{2} + 3$

   - while $C = -\frac{3}{2}$ and $D = 2$

2. If you reverse the order of integration of $\int_0^{\frac{1}{2}} \int_{\sqrt{x}}^{\sqrt{2}} f(x, y) \, dy \, dx$ then you will obtain an iterated integral $\int_C^D \int_A^B f(x, y) \, dy \, dx$.

   - where $A = 2y$ and $B = \sqrt{x}$

   - while $C = 0$ and $D = \frac{1}{4}$