Area Between Two Curves

A. Let $y = f(x)$ and $y = g(x)$represent two functions such that $f(x) \geq g(x)$(meaning the function *f* is always above the function *g* on the graph) for every *x* on the interval [a, b].

$$\text{Area Between Curves} = \int_a^b [f(x) - g(x)]\, dx$$

B. Let $x = f(y)$ and $x = g(y)$represent two functions such that $f(y) \geq g(y)$(meaning the function *f* is always to the right of the function *g* on the graph) for every *y* on the interval [a, b].

$$\text{Area Between Curves} = \int_a^b [f(y) - g(y)]\, dy$$