Area bounded by y = f(x), y = 0, x = a, x = b
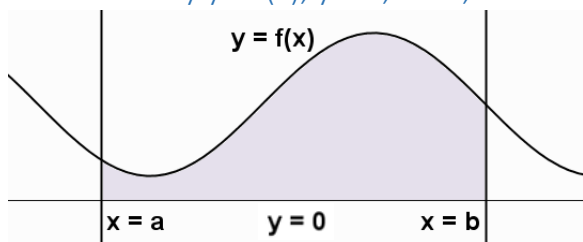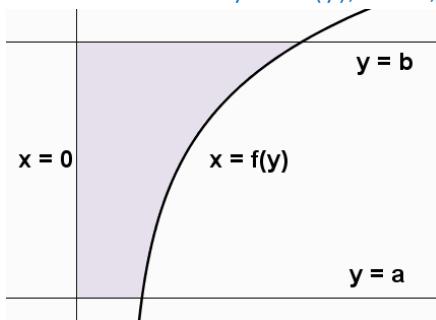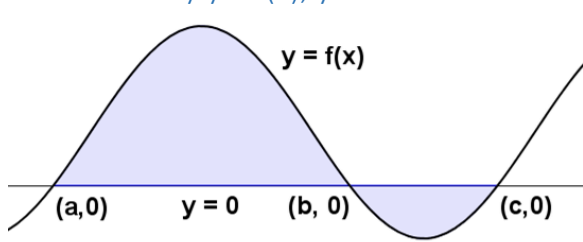

$$A = \int_a^b f(x)dx$$

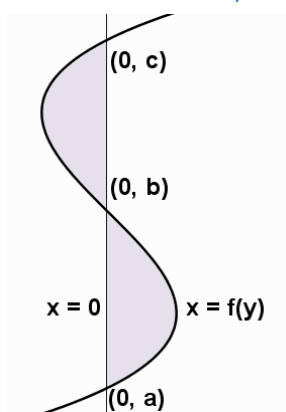### Area bounded by x = f(y), x = 0, y = a, y = b

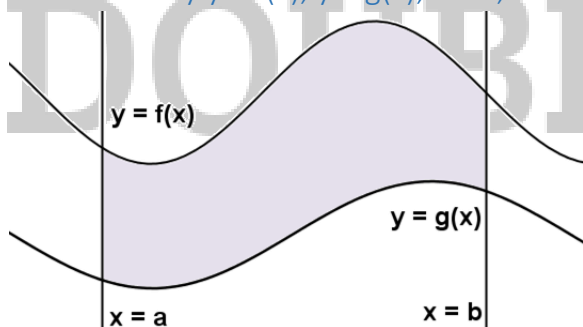
$$A = \int_a^b f(y)dy$$

Area bounded by y = f(x), y = 0

$$A = \int_a^b f(x)dx - \int_b^c f(x)dx$$
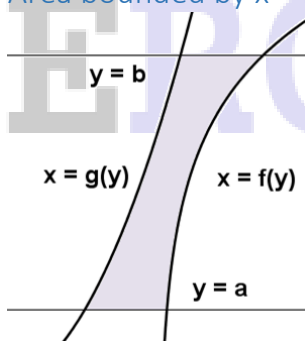
where a,b,c are the roots of f(x) = 0

Area bounded by x = f(y), x = 0
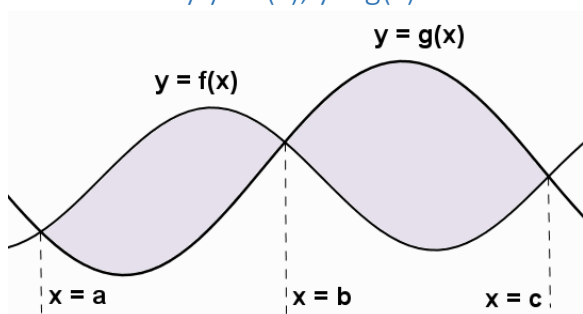

$$A = \int_a^b f(y)dy - \int_b^c f(y)dy$$

where a,b,c are the roots of f(y) = 0

Area bounded by y = f(x), y = g(x), x = a, x = b
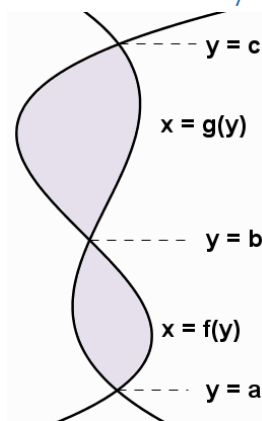

$$A = \int_a^b \big(f(x) - g(x)\big)dx$$

Area bounded by x = f(y), x = g(y), y = a, y = b

$$A = \int_a^b \big(f(y) - g(y)\big)dy$$

Area bounded by y = f(x), y = g(x)

$$A = \int_a^b f(x) - g(x)dx - \int_b^c g(x) - f(x)dx$$

where a,b,c are the roots of f(x) = g(x)

Area bounded by x = f(y), x = g(y)

$$A = \int_a^b f(y) - g(y)dy$$
$$- \int_b^c g(y) - f(y)dy$$

where a,b,c are the roots of f(y) = g(y)