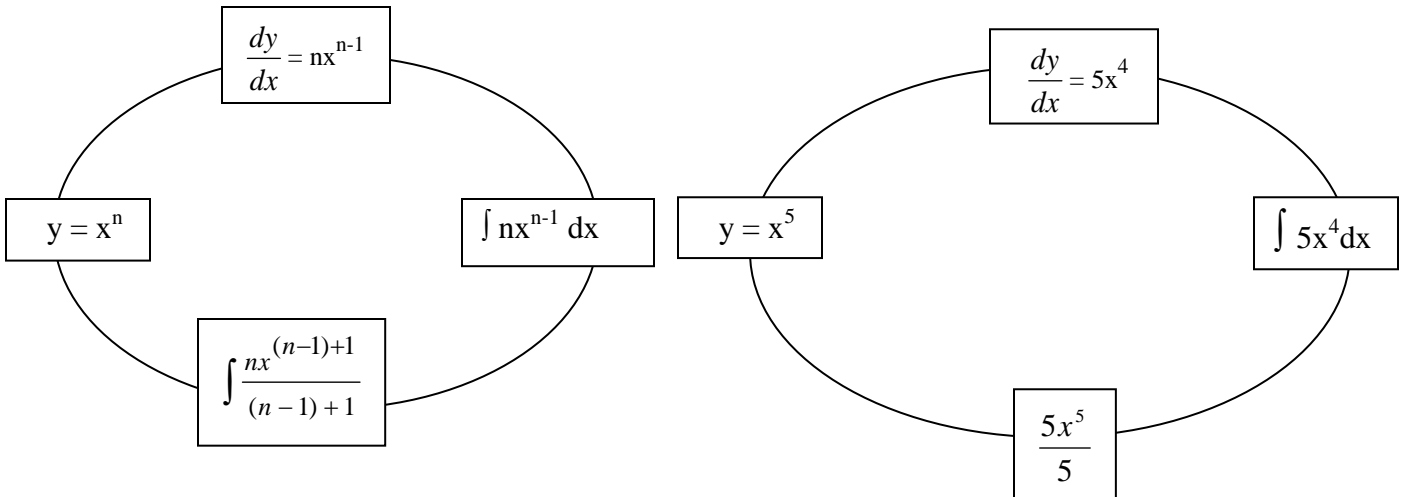


Integration is a reverse process of Differentiation



Multiply by the power and reduce the power by one

FORMULA WHICH IS NOT GIVEN

$$\int a \, dx = ax + c$$

$$\int x^n \, dx = \frac{x^{n+1}}{n+1} + c$$

$$\int ax^n \, dx = \frac{ax^{n+1}}{n+1} + c$$

$$\int (ax+b)^n \, dx = \frac{(ax+b)^{n+1}}{a(n+1)} + c$$

$$\int_a^b f(x) \, dx = -\int_b^a f(x) \, dx$$

$$\int_a^c f(x) \, dx = \int_a^b f(x) \, dx + \int_b^c f(x) \, dx$$

FORMULA GIVEN

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

$$V = \pi \int_a^b x^2 \, dx = \pi \int_a^b y^2 \, dy$$