C12 - 4.1 - Integration HW

C!

Integrate the following. (Find the Antiderivative) Don't forget to check by taking the derivative. And to add C!

$\int 5\,dx$

$\int 2x\,dx$

$\int x^2\,dx$

$\int \frac{x^2}{3}dx$

$\int 6x^2\,dx$

$\int (6x^2 + 2x)\,dx$

$\int \sqrt{x}\,dx$

$\int \frac{1}{x}dx$

C12 - 4.2 - Area HW

Find the area under the curve using Integration. Confirm the area by geometry.

$y = 2x$ $0 \leq x \leq 3$

$y = \sqrt{9 - x^2}$ Semicircle

Find the area under the curve using Integration.

$y = x^2$ $0 \leq x \leq 2$

$y = \sqrt{x}$ $0 \leq x \leq 9$

C12 - 4.3 - Volume HW

Find the Volume. Draw a graph.

$y = x^2$ $0 \leq x \leq 2$

$y = \sqrt{x}$ $0 \leq x \leq 4$