

Area Under the Curve

Evaluation Theorem:

$$\int_a^b f(x)dx = \underline{\hspace{10em}}$$

.....

Determine the area represented by the definite integral.

Example 1:

$$\int_0^1 x^{\frac{4}{5}} dx$$

f(x) = _____

x-bounds: _____

y-bounds: _____

Inequality: _____

Steps:

1	f(x) into desmos	X
2	x = a	X
3	x = b	X
4	y = bound	X
5	Shade in the region : Inequality	X
6	Check answer on desmos	X
7	**You solve it first!	

Area Under the Curve

Determine the area represented by the definite integral.

Example 2:

$$\int_1^8 \sqrt[3]{x} dx$$

f(x) = _____

x-bounds: _____

y-bounds: _____

Inequality: _____

Example 3:

$$\int_{-1}^0 (2x - e^x) dx$$

f(x) = _____

x-bounds: _____

y-bounds: _____

Inequality: _____