

Name: _____

1. $\int_1^2 (x^2 + 1) dx =$

2. $\int_0^\pi \sin(x) dx =$

3. Find the area under the graph of $y = x^2$ between $x = 0$ and $x = 2$.4. Find the derivative of the function $F(x) = \int_1^x \frac{1 + \cos(t)}{\sqrt{t+4}} dt$.5. Find the derivative of the function $y = \int_1^{x^2+x} \frac{1 + \cos(t)}{\sqrt{t+4}} dt$.

Name: _____

1. $\int_{-1}^1 (x^2 + 1) dx =$

2. $\int_0^1 \sqrt{x} dx =$

3. Find the area under the graph of $y = \sin(x)$ between $x = 0$ and $x = \pi$.

4. Find the derivative of the function $F(x) = \int_1^x \frac{\sqrt{t+4}}{1+\cos(t)} dt$.

5. Find the derivative of the function $y = \int_1^{\sin(x)} \frac{\sqrt{t+4}}{1+\cos(t)} dt$.

Name: _____

1. $\int_0^2 (x^2 + x) dx =$

2. $\int_0^{\pi/4} \sec^2(x) dx =$

3. Find the area under the graph of $y = \frac{1}{x}$ between $x = 1$ and $x = e$.4. Find the derivative of the function $F(x) = \int_1^x \frac{1 + e^t}{\sqrt{t + 4}} dt$.5. Find the derivative of the function $y = \int_1^{x^2+x} \frac{1 + e^t}{\sqrt{t + 4}} dt$.

Name: _____

1.
$$\int_{-1}^1 (x^3 + 1) dx =$$

2.
$$\int_0^\pi \cos(x) dx =$$

3. Find the area under the graph of $y = e^x$ between $x = 0$ and $x = 1$.4. Find the derivative of the function $F(x) = \int_1^x \frac{\cos(t+2)}{t^3+1} dt$.5. Find the derivative of the function $y = \int_1^{x^2+1} \frac{\cos(t+2)}{t^3+1} dt$.