

Name: _____
AP Calculus AB: More Integration with Trig Functions

Date: _____
Ms. Loughran

Do Now:

1. $\int \frac{t+1}{t} dt =$

2. $\int \cos(3x) dx =$

3. $\int \frac{\sin x}{\cos x} dx =$

Classwork

4. $\int \frac{\cos x}{\sin x} dx =$

$$\int \tan x dx =$$

$$\int \cot x dx =$$

$$\int \sec x dx =$$

$$\int \csc x dx =$$

$$5. \int \frac{\cos x}{\sin^2 x} dx =$$

$$6. \int \sec^3(2x) \tan(2x) dx =$$

$$7. \int \cot(7x) dx =$$

$$8. \int \frac{dx}{\cos^2(2x)} =$$

$$9. \int \cot^2(3x) dx =$$

$$10. \int \cos^3 x dx =$$

More Practice

1. $\int \cos(8x) dx =$

2. $\int \frac{5}{1+x^2} dx =$

3. $\int \frac{1}{\sqrt{1-x^2}} dx =$

4. $\int \sqrt{x-1} \sqrt{x+1} x dx =$

5. $\int \sqrt{3+x^2} x^3 dx =$

6. $\int (e^{2x} + 1)e^{-x} dx =$

7. $\int x^2 \sec^2(x^3) dx =$

8. $\int \cos(4\theta) \sqrt{2 - \sin(4\theta)} d\theta =$