

East Los Angeles College
Department of Mathematics
Math 262
Test 2 Class

Evaluate the following limits

1. $\lim_{x \rightarrow \infty} \frac{4x+3}{2x-1}$

2. $\lim_{x \rightarrow -\infty} x \sin\left(\frac{1}{x}\right)$

Integrate using **Integration by Parts**.

3. $\int x^2 e^{-x} dx$

4. $\int \ln^2(x) dx$

Integrate the following **Trigonometric Integrals**.

5. $\int \cos^3(x) \sin^2(x) dx$

6. $\int \tan^3(x) \sec^5(x) dx$

Integrate by using **Trigonometric Substitution**.

7. $\int \sqrt{16 + x^2} dx$

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

Integrate by using **Partial Fraction Decomposition**.

9. $\int \frac{1}{x^2 - 7x + 10} dx$

10. $\int \frac{18}{(x+3)(x^2+9)} dx$

11. What is your name?

You will use scanning software to create a pdf file and upload your completed test to the **Announcement** portion in **Canvas** titled **Math 262 Test 2 Upload**. I will post the Take Home Portion for this Test online later today.