

YOUR NAME: \_\_\_\_\_

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Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Calculate the integral  $\int \tan^2 x \sec^3 x dx$ .

2. Use trigonometric substitution to calculate the integral  $\int \frac{dx}{\sqrt{9-x^2}}$ .

3. Use partial fraction decomposition to calculate the integral  $\int \frac{5x - 7}{x^2 - x} dx$ .