

How to Integrate Certain Rational Fractions

Name _____

Evaluate the integral.

1. $\int \frac{dx}{(4x+1)^3}$

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

3. $\int \frac{xdx}{x^2+2}$

4. $\int \frac{3x-5}{x^2+9} dx$

5. $\int \frac{dx}{9x^2+4}$

6. $\int \frac{dx}{x^2+2x+3}$

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

8. $\int \frac{dx}{x^2-2x+3}$

9. $\int \frac{dx}{2x^2+6x+5}$

10. $\int \frac{xdx}{5x^2-3x+2}$

11. $\int \frac{x+3}{x^2+x+1} dx$

12. $\int \frac{3x+5}{3x^2+2x+1} dx$