Integration by Partial Fractions

Name _____

Evaluate the integral.

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

2. $\int \frac{(2x-1)dx}{x^2-5x+6}$

3. $\int \frac{dx}{(x-3)(x^2-4)}$

4. $\int \frac{3dx}{(x+1)(x^2+x)}$

5. $\int \frac{(x^2+11x)dx}{(x-1)(x+1)^2}$

6. $\int \frac{(4x^2-21x)dx}{(x-3)^2(2x+3)}$

7. $\int \frac{3x+6}{x^2(x-1)(x-3)}dx$

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

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

10. $\int \frac{(3x^2-4x+5)dx}{(x-1)(x^2+1)}$

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

12. $\int \frac{6x^2+7x-6}{(x^2-4)(x+2)}dx$

13. $\int \frac{dx}{x(x^2+25)}$

14. $\int \frac{10dx}{(x+1)(x^2+9)^2}$

15. $\int \frac{100xdx}{(x-3)(x^2+1)^2}$

16. $\int \frac{dx}{x^4-1}$

17. $\int \frac{x^2+3}{(x^2+2x+3)^2}dx$

18. $\int \frac{dx}{(x+2)(x^2+4x+10)}$