

Math 1513 - College Algebra

Discussion Board Week 16 - Due 2012.05.05

Find the partial fraction decomposition for each rational expression.

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

2. $\frac{2x-1}{x(x^2+2)}$

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

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

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

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

7. $\frac{5}{(2x+1)^2(2x-1)}$

8. $\frac{5}{(2x+1)(2x-1)^2}$

9. $\frac{1-5x}{x^2(2+x)^2}$

10. $\frac{2}{x^2(x+3)}$

11. $\frac{2x}{(x+1)^2(x+3)}$

12. $\frac{2x+1}{(x+1)^3(x-1)}$

13. $\frac{5}{3x(2x-5)^2}$

14. $\frac{3x^2-10x+1}{(x-2)(2x+1)}$

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

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

17. $\frac{-2+x}{(3x-2)(2x+1)(x-1)}$

18. $\frac{x-5}{(3x+2)^2(x^2+5)}$

19. $\frac{x^2-5}{(3x-2)^2(x^2+5)}$

20. $\frac{x^2-5}{(x-2)^2(x^2+3)}$

21.
$$\frac{x^4 + 1}{(3x - 2)^3(x^2 + 5)}$$

22.
$$\frac{2x^4 + 1}{(3x + 2)(x^2 + 5)^2}$$

23.
$$\frac{x^3 - 11}{(x + 1)^2(2x - 1)^2}$$

24.
$$\frac{x^2 + 4}{(x + 1)^2(2x + 1)^2}$$

25.
$$\frac{x}{(x + 1)(x + 2)^2(x + 3)}$$