

Math 1513 - College Algebra

Discussion Board Week 2 - Due 2012.01.21

Pick your problem, then perform the following addition or subtraction, show all your steps!

1. $\frac{2x-1}{(3x+5)(4x-7)} - \frac{x}{(3x-7)(4x+5)}$
2. $\frac{-1+x}{(3x+5)^2} + \frac{x}{(3x+7)}$
3. $\frac{x^2+1}{(x-1)^2} - \frac{x^2}{(2x-5)(5x+7)}$
4. $\frac{x^2-2x+5}{x-1} + \frac{x^3+1}{(3x+7)(2x+1)}$
5. $\frac{x-1}{x^2-2x+5} + \frac{(3x+7)(2x+1)}{x^3+1}$
6. $\frac{x+1}{(2x^2+1)(2x-1)} - \frac{x}{4x-7}$
7. $\frac{2x^2+3x}{x^3(x-1)} + \frac{-x^2+1}{(x-1)(x^2+1)}$
8. $\frac{2-3x^2}{x^2(x^2+1)} - \frac{-x^2+1}{(x^2+2x+2)}$
9. $\frac{(x+1)(x+2)}{x(x-1)(x-2)} + \frac{(x-1)(x+2)}{x(x-2)(x+1)}$
10. $\frac{(2x+1)(3x-5)}{(x+2)(3x^2-1)} + \frac{(5x+1)(3x-7)}{(2x-1)(6x-9)}$
11. $\frac{(x^2+1)(2x+1)}{4x^2+3x-1} + \frac{7x+3}{2x-1}$
12. $\frac{6x+1}{(3x-2)(5x+1)} + \frac{2x+1}{(3x-4)(5x+2)}$
13. $\frac{(2x+1)(x-1)}{3x+1} + \frac{5x-1}{(6x-5)(7x-6)}$
14. $\frac{x^3(x-1)}{3x(4x-3)(6x+1)} + \frac{x^2(x+1)}{7x(4x+3)(6x-1)}$
15. $\frac{x^2(2x+1)}{x^2-2x-2} + \frac{5x+7}{6x^3+2x-1}$
16. $\frac{5x-7}{(4x+7)(4x+8)} + \frac{x^3}{(3x-5)(3x-4)(4x+8)}$

17. $\frac{(2x-1)(2x-3)}{x^4(x-1)} + \frac{(x+1)^2}{x^3(x-1)^3}$
18. $\frac{x^3-1}{x^2(2x+3)^2} + \frac{x^3+1}{x^4(2x+3)}$
19. $\frac{x^2+2x+6}{(3x+1)(2x+3)} + \frac{x^3}{(3x+1)^2(2x+3)^2}$
20. $\frac{(x-1)(x+1)}{x^2(x+2)} + \frac{x^2+2x-1}{x^2+2x+1}$
21. $\frac{(5x+2)(4x-7)}{3x^3+2x-1} + \frac{(6x+1)(4x+1)}{3x^2+2x-1}$
22. $\frac{x(x-1)(x-2)^2}{(x+1)(x+2)^2} + \frac{x^2(x+1)(x-2)}{(x-1)^2(x+2)}$
23. $\frac{2x+1}{(3x+2)(2x+3)x^3} + \frac{5x+10x^2}{2x^3-2x+1}$
24. $\frac{(3x+2)(3x+5)}{2x^2+1} + \frac{(5x+2)(5x+3)}{4x^2+1}$
25. $\frac{(2x+1)(2x+9)}{x^3(x+1)^2} + \frac{x+1}{x^2(x+1)^3}$
26. $\frac{4x^2-1}{(2x+3)(4x-7)} + \frac{x^3+1}{2x^3-3x^2+1}$
27. $\frac{(9x-1)(9x+3)}{(8x+3)(4x-7)^2} + \frac{(5x^2+2x-1)}{(8x+3)^2(4x-7)}$
28. $\frac{4x^4+3x^2}{(9x+3)(9x-5)(9x+7)} - \frac{x^3+x^2}{(9x+3)^2(4x-6)^2}$
29. $\frac{(3x+1)(3x-2)}{(3x-4)(3x-5)} - \frac{(3x-1)(3x+2)}{(3x-4)(3x+5)}$
30. $\frac{(4x+5)(4x+6)}{x^2(x-1)} + \frac{3x-7x^3}{x(x-1)^3}$
31. $\frac{(5x+2)(5x-3)(5x-7)}{(3x+1)(3x+5)^2} - \frac{(5x+1)(5x-4)}{(3x+1)^2(3x+5)}$
32. $\frac{(5x-2)(5x+7)}{(3x-1)(3x-5)^2} - \frac{(5x+1)(5x-4)}{(3x-1)^2}$