Calculus Worksheet #3 Unit 9 page 1 _____

Integrate each of the following.

1. $\int (x^2 - 3x + 5)\,dx =$ _____

2. $\int (3x^4 - 2)\,dx =$ _____

3. $\int (4x - 3)^7\,dx =$ _____

4. $\int (9x + 2)^4\,dx =$ _____

5. $\int x(x^2 - 5)^5\,dx =$ _____

6. $\int x^2(x^3 - 1)^6\,dx =$ _____

7. $\int \frac{dx}{(2x - 1)^5} =$ _____

8. $\int \frac{dx}{(5x + 7)^3} =$ _____

9. $\int \sqrt{1 - 3x}\,dx =$ _____

10. $\int x\sqrt{x^2 - 4}\,dx =$ _____

11. $\int \frac{x\,dx}{(x^2 + 4)^2} =$ _____

12. $\int \frac{x^2\,dx}{\sqrt{x^3 + 8}} =$ _____

Calculus Worksheet #3 Unit 9 page 2

Integrate each of the following.

13. $\int \sin(7x - 1)\, dx =$ _____

14. $\int \cos(6x)\, dx =$ _____

15. $\int \sec^2(2x + 3)\, dx =$ _____

16. $\int \sec(3x)\tan(3x)\, dx =$ _____

17. $\int \csc^2(1 - 5x)\, dx =$ _____

18. $\int \csc(x - 3)\cot(x - 3)\, dx =$ _____

19. $\int x \sin(2x^2 + 3)\, dx =$ _____

20. $\int x \sec^2(x^2)\, dx =$ _____

21. $\int x^3 \csc^2(x^4 - 3)\, dx =$ _____

22. $\int x^2 \cos(1 - x^3)\, dx =$ _____

23. $\int x^2 \csc(x^3 + 1)\cot(x^3 + 1)\, dx =$ _____

24. $\int (x + 3)\sec(x + 3)^2 \tan(x + 3)^2\, dx =$ _____

Calculus Worksheet #3 Unit 9 page 3

Integrate each of the following.

25. $\int \frac{\cos \sqrt{x}\ dx}{\sqrt{x}} =$ _____

26. $\int \frac{\csc^2 \sqrt{3x+2}\ dx}{\sqrt{3x+2}} =$ _____

27. $\int \sin^3 x \cos x\ dx =$ _____

28. $\int \tan^7 x \sec^2 x\ dx =$ _____

29. $\int \cos^3(2x+1) \sin(2x+1)\ dx =$ _____

30. $\int \sec^2 x \tan x\ dx =$ _____

31. $\int \cot^3(1-3x) \csc^2(1-3x)\ dx =$ _____

32. $\int \csc^4(3x) \cot(3x)\ dx =$ _____