

Calculus Worksheet #3 Unit 6 page 1

Find dy/dx for each of the following.

1. $y = \sin(2x + 5)$

2. $y = \sin(1 - x^2)$

3. $y = \cos(3x - 1)$

4. $y = \cos(x^2 + 4)$

5. $y = \tan(1 - 3x)$

6. $y = \tan(x^3 + 1)$

7. $y = \sec(5x)$

8. $y = \sec(x^5)$

9. $y = \cot(7x + 9)$

10. $y = \cot(3 - x^3)$

11. $y = \csc(2x - 5)$

12. $y = \csc(x^2 - 5)$

13. $y = \sin^5(x)$

14. $y = \sin^3(2x + 1)$

15. $y = \cos^4(x + 3)$

16. $y = \cos^6(3x^2)$

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Find dy/dx for each of the following.

$$17. \quad y = \tan^3(1 - 5x)$$

$$18. \quad y = \tan^2(x^3)$$

$$19. \quad y = \sec^6(x - 5)$$

$$20. \quad y = \sec^3(9 - x^2)$$

$$21. \quad y = \cot^3(8x)$$

$$22. \quad y = \cot^7(5x - 3)$$

$$23. \quad y = \csc^2(x^2 + 4)$$

$$24. \quad y = \csc^6(7 - 2x)$$

$$25. \quad y = \sin \sqrt{2x}$$

$$26. \quad y = \sqrt{\sin(2x)}$$

$$27. \quad y = \tan \sqrt{2x - 1}$$

$$28. \quad y = \sqrt{\tan(2x - 1)}$$

$$29. \quad y = \sec \sqrt{x^2 - 1}$$

$$30. \quad y = \sqrt{\csc(x^3)}$$