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Find dy/dx for each of the following.

1. $y = \sin(5x - 1)$

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

3. $y = \cot(2x + 5)$

4. $y = \cos^3(3x + 1)$

5. $y = \tan^4(1 - x^2)$

6. $y = \csc^6(x^2 + 4)$

7. $y = \sqrt{\cos(3x + 1)}$

8. $y = \cos \sqrt{3x + 1}$

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

10. $y = \sin(3x) \cos(x + 2)$

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Find dy/dx for each of the following.

11. $\sin(x) + \cos(y) = 1$

12. $\sec(y) - \tan(x) = 1$

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

14. $\sin(xy) = x^3$

Find $f'(x)$ and $f''(x)$ for each of the following functions.

15. $f(x) = \sin(6x)$

16. $f(x) = \cos(x^2)$

17. $f(x) = \csc(x)$

18. $f(x) = \tan(x)$