NAME _____ DATE _____ PD _____

AP CALCULUS **Chapter 4 Review**

Find the derivative of each:

1. $f(x) = (2x - 4)^5$

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

3. $g(x) = \frac{4}{\sqrt{25x^2+2}}$

4. $f(x) = \tan(\cos 3x)$

5. $y = \sin^2 4x$

6. $g(x) = 2x\sqrt{2x - 1}$

7. $h(x) = \frac{\sin x}{e^{-x^2}}$

8. $y = \ln(\sin x)$

9. $h(x) = \sqrt{2x}\cos x$

10. $y = \ln(x^2\sqrt[3]{3x^2 + x})$

11. $y = \tan^{-1} 4x$

Find $\frac{dy}{dx}$:

12. $x^3 + y^3 = 3xy$

13. $\cos(xy^2) = y$

14. $x^3y + xy^3 = 6$

Find $\frac{d^2y}{dx^2}$

15. $2x^2 - 3y^2 = 4$

16. $y + \sin y = x$