AP Calculus - #2.4c Name_____

Differentiate each function with respect to *x*.

1) $y = (2x + 3)^3$

2) $y = (2x + 3)^5$

3) $y = (4x^3 + 5)^3$

4) $y = (-4x^3 - 5)^5$

5) $y = \sin 2x^3$

6) $y = \tan 5x^4$

7) $y = ((2x^5 + 3)^5 - 4)^3$

8) $y = ((x + 4)^5 + 5)^4$

9) $y = \cos(\cos 2x^4)$

10) $y = \cos(\sin 2x^4)$

11) $y = (5x^5 - 3)^5(3x^2 - 1)$

12) $y = (2x^5 + 3)^3(2x + 5)$

13) $y = \dfrac{2x^5 - 5}{(-2x^3 - 1)^4}$

14) $y = \dfrac{(x^2 + 3)^4}{4x^5 + 3}$

15) $y = \dfrac{(3x^3 - 5)^4}{(2x^4 + 1)^5}$

16) $y = (-5x + 3)^5 \cdot (-3x^3 + 1)^3$