Unit 7 Skill Practice   Name:_____ Per:___ Group:_____

Complete the following problems in your AP Prep notebook. All semester 2 items must also be present, completed and corrected.

Find the derivative of each. Show all work.

3) $y = \log_3 3x^2$

4) $y = \log_2 4x^2$

5) $y = \log_3 (3x^5 + 5)^5$

6) $y = \log_5 (-5x^3 - 2)^3$

7) $y = (4^{x^3} + 2)^3$

8) $y = 3^{(x^4 + 1)^3}$

9) $y = 3^{\cos 3x^4}$

10) $y = \log_5 \tan 4x^4$

Evaluate each indefinite integral.

5) $\displaystyle\int \frac{12x^2}{x^3+2}\,dx$

6) $\displaystyle\int \frac{20e^{5x}}{e^{5x}+3}\,dx$

3)

$\displaystyle\int 80x^3(3)^{5x^4}\,dx$

4)

$\displaystyle\int \frac{2}{x(\ln(4x))}\,dx$

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