MATH 181 CALCULUS I WORKSHEET 6 ½ FALL OF 2011

Find $\frac{dy}{dx}$ (find the derivative with respect to x) of each of the following using *any technique* you wish to use (that is correct, one hopes)***!***

1. $y = 5 \cdot \sec(x) \cdot 2^{(x-1)}$
2. $y = 5^x \cdot \tan(x) \cdot e^{(x)}$
3. $y = \sin(x) \cdot \csc(x)$
4. $y = 7x \cdot \ln(x^2)$
5. $y = 7^x \cdot \ln(x^7)$
6. $y = \ln(e^{2x})$
7. $y = (x)^{(5x+1)}$
8. $y = (\sin(x))^{(\ln(x)}$
9. $y = (\ln(x))^{(\sin(x))}$
10. $y = \log_5(x) \cdot \sqrt[4]{x^7 + 1}$
11. $(x + y)^2 = 4x^2y^2$
12. $3x^2 + 16y^2 = 48$
13. $3x^2 - 16y^2 = 48$
14. $3x^2 - 9x + 16y^2 + 64y = 400$
15. $x^2y = \cos(x^2y)$
16. $xy^2 = \cos(x^2y)$
17. $y = \frac{\cos(x) + 4}{\tan(x)}$

Answer :_____