

MATH 181 CALCULUS I WORKSHEET 6 ¼

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. $y = \frac{\cos(x) + 4}{\tan(x)}$

12. $y = x^2 - x^3$

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

13. $y^2 = x^2 - x^3$

3. $y = (\tan^5(x))$

14. $x^2 = x^2 - y^3$

4. $y = 5^{(\tan(x))}$

15. $4x^2 - 9y^2 = 25$

5. $y = 5 \cdot \tan(x)$

6. $y = (\ln(x))^5$

7. $y = (\log_4(x))^5$

8. $y = (\log_4(5))^x$

9. $y = (5)^{\log_4(x)}$

10. $y = 6^{\log_4(5)}$

11. $y = x^{(\tan(x))}$

Answer : _____