

Differentiation Quiz C

Use the rules for differentiation to find $\frac{dy}{dx}$ (no t's in your answers.)

1. $y = 7x^4 - 3x + 8$ 1. _____

2. $y = u^2, \quad u = \tan v, \quad v = x^2 - 1$ 2. _____

3. $y = \ln 4x - 10^x - \sin x + (4x - 1)^2$ 3. _____

4. $y = \cos t, \quad x = -\sin t$ 4. _____

5. $y = \sec^2(x - 4)$ 5. _____

6. $y^3 - 3xy + 6x^2 = 0$ 6. _____

7. $y = \frac{3}{(x^3 - 4)^2}$ 7. _____

8. $y = (x - 3)^3(2x + 1)$ 8. _____

9. $y = \frac{(2x - 1)(3x - 4)^3}{(3x - 4)^2}$ 9. _____

10. $2^x y = (\sin x)^2$ 10. _____