

Group Work Review for Test II

1. If $g(x) = \sqrt{11x}$ find $g'(x)$.

2. If $y = 14x^2 - 6x - 7x^{-2}$ find y'

3. If $y = \frac{3}{x^7} - \frac{3}{x^6} + \frac{3}{x} + \sqrt{7}$ find $\frac{dy}{dx}$

4. Find all values of x where the tangent line is horizontal.

$$f(x) = x^3 - 4x^2 - 8x + 18$$

5. Find the point on the graph of $f(x) = x^2 + x$ where the slope of the tangent line is -3 .

6. Find $D_x y$ where $y = (8x^2 - 9)(3x^2 - 2x + 6)$.

7. Find y' where $y = \frac{7x^2+3}{x^2+1}$

8. If $s(t) = 48(8t^3 - 3)^{\frac{5}{6}}$ find $s'(t)$.

9. If $y = e^{2x}(2x + 9)^9$ find $\frac{dy}{dx}$.