Math 1325 – Business Calculus

Professor: Fred Khoury

Final Exam List to Know

1. Find the derivative $f(x)=8x^{-2}-3x^{3}+11x$

2. Find the derivative $f(x)=\frac{8}{\sqrt{x}}-\frac{8}{x^{4}}$

3. Find the derivative $g(x)=3x^{2}-5x+7$

4. Find the derivative $g(x)=3x^{2}-5x+7$

5. Find the derivative $f(x)=\left(5x^{3}+4\right)\left(3x^{7}-5\right)$

6. Find the derivative $y=\frac{2x-7}{3x-2}$

7. Find the derivative $g(t)=\left(4x^{2}+3x\right)^{2}$

8. Find the derivative $f(x)=\sqrt{x^{2}-3x+5}$

9. Find the derivative $y=\frac{6e^{x}}{2e^{x}+1}$

10. Find the derivative $y=\ln x^{4}-5e^{x}+2x^{3}$

11. Find the relative extrema $g(x)=3x^{2}-5x+7$

12. Find the critical numbers and increasing, decreasing $f(x)=x^{3}-3x+2$

13. Find the point of inflection $f(x)=6x^{3}-8x^{2}-6x-2$

14. Find the rate of change of concentration

15. Find the marginal average revenue

16. Minimize the average cost

17. Where is $C(x)$ increasing or decreasing?

18. Maximum Profit given $R(x)$ and $C(x)$

19. Maximum Revenue given $p(x)$

20. Application problem Maximum Profit

21. Maximum Percentage given $P(x)$ $a\le x\le b$

22. Find the integral $\int\left(x^{-3}-4x^{2}+2x-5\right)dx$

23. Find the integral $\int \left(6x^5 + 5x^4 + 4x^3 + 2x - 6\right) dx$

24. Find the integral $\int 3(2x+5)^3 \, dx$

25. Find the integral $\int_0^1 e^{5x} dx$

26. Find the integral $\int_0^2 \left(2x^2 + x + 4\right) dx$

27. Find the cost function given $C'(x)$ and the fixed cost