Math 106 Fall 2019 Chapter 0 Written HW Due Thursday Sept 5th

Your work should be written NEATLY on a separate sheet of paper. If there are multiple pages, please STAPLE all pages together. Do NOT fold over the corner.

1: Find the domain of $f(x) = \dfrac{1}{\sqrt{3-x}}$. Write your answer in interal form.

2: Let $f(x) = 2x - 3x^2$ Find $f(0), f(-1/4)$, and $f(\dfrac{1}{\sqrt{2}})$.

3: Find the points of intersection between the curves $y = -x^2 + x + 1$ and $y = x - 5$

4: Let $f(x) = x^2 - 2x$ and $g(x) = 3x - 1$. Find $f(x) + g(x)$, $f(x)(g(x)$, and $f(g(x))$

5: Simplify $81^{3/4}$

6: Simplify $\dfrac{x^2y^3}{x^{-2}y^4}$

7: Suppose that \$7000 is deposited in an account that pays 9% interest compounded monthly. Calculate the account balance at the end of 10 years.

8: Let $f(x) = x^2 - 2x + 4$, $g(x) = 1/x^2$ and $h(x) = \dfrac{1}{\sqrt{x}-1}$. Find $f(h(x))$, $g(f(x))$, and $f(g(x))$