MA 261 Quiz 4
February 5, 2019

If you do not know how to do any one of these problems, circle **"(E) I don't know"** as your answer choice. You will receive **two points** for doing that. **Each problem is worth five points**. You get **two points** for writing your **full name** and **three points** for writing your **section number**.

Problem 4.1. What is the domain of the function $f(x, y) = \ln(x/(y + 2))$?
  (A) $x > 0$, $y > -2$
  (B) $x > 0$, $y > 2$
  (C) $x > 0$, $y > -2$ or $x < 0$, $y < -2$
  (D) $x > 0$, $y > 2$ or $x < 0$, $y < 2$
  (E) I don't know how to do this

Problem 4.2. Find dy/dx for $3y^4 + x^7 = 5x$.
  (A) $(7x^6 - 5)/(12y^3)$
  (B) $(5 - 7x^6)/(12y^3)$
  (C) $12y^3/(5 - 7x^6)$
  (D) $2x^3/(1 - x^6)$
  (E) I don't know how to do this

Problem 4.3. What are the level curves of $f(x, y) = \sqrt{x^2 + 4y^2 + 4} - x$?
  (A) hyperbolas
  (B) ellipses
  (C) parabolas
  (D) circles
  (E) I don't know how to do this