

Math 126 E, F Spring 2019
Mid-Term Exam Number Two
May 23, 2019
Answers

There were two versions of the exam in use.

Version A: In problem 1, $f(x, y) = x^3 + 2y - xy^3$.

1. (a) $z = 2x - y + 1$ (b) b is approximately 0.995.
2. The absolute minimum is -3 , occurring at $(0, 3)$ and the absolute maximum is 7.125, occurring at $(\frac{9}{2}, \frac{3}{4})$.
3. (a) 4 (b) $\frac{4}{15}$
4. 5

Version B: In problem 1, $f(x, y) = x^3 + y - 4xy^3$.

1. (a) $z = 10 - x - 11y$ (b) b is approximately $\frac{221}{220}$.
2. The absolute minimum is -2 , occurring at $(0, 2)$ and the absolute maximum is 7.375, occurring at $(\frac{5}{2}, \frac{3}{4})$.
3. (a) 18 (b) $\frac{13}{30}$
4. $\frac{255}{16}$