

October 19

- Find the extrema of $f(x, y) = x^2 + y^2$ subject to the constraint $x^2 + xy + y^2 \leq 3$.
- Find the extrema of $f(x, y) = xy$ subject to the constraint $x^2 + y^2 - 4x - 4y + 7 \leq 0$.