

Today

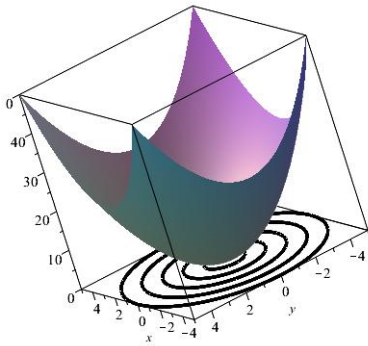
1. Go over exam.
2. 14.1 Multivariable functions (Understand functions of two or more variables and their graphs; understand level curves and level surfaces.)
3. Homefun

Where is today's material used?

1. Physics (functions of position and time and pretty much everything else)
2. Economics (Black-Scholes option pricing model; Cobb-Douglas production function; utility, production, and cost functions, ...)
3. Chemistry (physical chemistry, Boyle's law, ...)

14.1 Multivariable Functions

1. Functions of two (or more variables): $f(x, y)$, $f(x, y, z)$, etc.
2. Level curves: take $f(x, y) = C$. These lie in the xy -plane.



3. Level surfaces. $w = x^2 + y^2 + 4z^2$:

4. 14.1: 5, 13, 17, 21-29[pick one!], 35-38[pick one!], 45, 46, 61-64
5. WeBWork: 3, 4, 6, 7, 8

Next Time

1. Watch 14.2 [~ 35]
2. Homefun/Python