

Lecture 1

Wednesday, May 1, 2024 8:53 AM

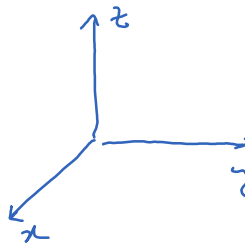
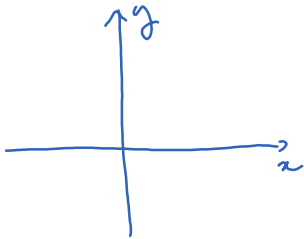
Where does Multivariable Calculus fit?

Math 212 (Calc I) - function, graph, limit, derivative, integral

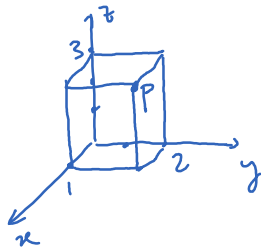
Math 213 (Calc II) - more integral, differential equation, series

Math 214 (Multivariable) - functions of more than one variable
required for Math & Math Ed

Three dimensional coordinate systems



How to draw point $P(1, 2, 3)$?



Positive orientation vs negative orientation: the right-hand rule and the screw-driver rule.

Distance formula: distance from $A(a, b, c)$ to $B(d, e, f)$ is

$$\sqrt{(a-d)^2 + (b-e)^2 + (c-f)^2} \quad (\text{from Pythagorean thm})$$