

Section #4

TA: David Li

Covered: §2.1, §2.2, §2.3

2.1 – Geometry of Real-Valued Functions

HW: 36

2.2 – Limits and Continuity

HW: 6, 8, 12, 14, 16, 24

Sample problems: 9, 10, 15

- Open sets and Boundary points
- Limit definition, uniqueness, and properties for general functions
- Continuity, properties of continuity, composition of continuous functions
- Epsilon-delta formulation of limits and continuity

2.3 – Differentiation

HW: 1, 2, 4, 10, 18

Sample problems: 3, 6, 9

- Partial Derivatives
- Linearization
- Differentiability
- Tangent Plane
- Gradient
- Relating differentiation and continuity