MTH 30 LECTURE NOTES (Ojakian)

Topic 2: Domain and Range

OUTLINE

(References: 1.2)

1. Domain and Range

2. Interval notation and set builder notation

3. Piece-wise Functions

---

1. <u>Motivating Example</u>

   What is the domain and range of $f(x) = \dfrac{\sqrt{x}}{x-3}$

2. <u>Inequality Notation and Interval Notation</u>

   (a) Endpoints that are numbers

   (b) Endpoints that are infinities

   (c) Unions

3. <u>Set Builder Notation</u>

   (a) Examples

4. <u>Using Algebraic Definition versus the Graph</u>

   (a) Examples

   (b) Algebra problems. Secton 1.2: 6, 14, 8 (and if 1 over this)

   (c) Graph problems. Section 1.2: 28, 29

5. <u>Piece-wise Defined Functions</u>

   (a) Examples

   (b) Problems. Section 1.2: 39

6. <u>More Problems</u>

   Secton 1.2: 57