Honors Core Content

Cluster Title: Sets

Standard: Understand sets and use set notation to communicate mathematical ideas.

Concepts and Skills to Master

- Understand the definition and classifications of sets and subsets.
- Use the element set notation for union \cup , element \in , intersection \cap , non-element \notin , null set \emptyset .
- Find unions and intersections of sets given a description, set notation, or a graph.

Guiding Instructional Questions

- How can set notation be used to communicate mathematical ideas?
- Are Ø, 0, and "no solution" equivalent?
- Do R (all real numbers) and "infinitely many solutions" mean the same thing?

Instructional Strategies

- Use set notation for Real [R], Integer [Z], Natural [N], Whole [W], Prime [P], Rational [Q], Irrational [I] numbers.
- Create Venn Diagrams to indicate sets, subsets, intersections, and unions.
- Explore the concept of closure in sets.
- Compare and contrast intersections of sets and unions of sets.