Unit 1-1A Properties of Parabolas

NOTE:

Relation:

The input values are known as the () & ()

The output values are known as the () & ()

Example: Find the domain and Range:

1.

Domain:

Range:

Interval Notation

Not included

The interval does NOT include the endpoint(s)

Interval notation: Parentheses

Graph: Open Dot

Included

The interval does include the endpoint(s)

Interval Notation

Square Brackets:

Graph: Closed Dot

Set Notation

Description of interval: All real numbers from to including and .  
Set Notation:

Description of interval: All real number greater than   
Set Notation:

Description of interval: All real numbers less than or equal to   
Set Notation:

Examples # 1-4: Describe the domain and range in interval and set notation. Determine whether or not the graph is a function.

1. Graph Description: dots scattered

Domain:  
Range:  
Function?:

2. Line segment

Closed dot:   
Open dot:

Domain:  
Range:  
Function?:

3. Line

Domain:  
Range:  
Function?:

4. Line Segment that bends

Domain:  
Range:  
Function?:

Focus on Higher Order Thinking

Explain the Error: Cameron sells tickets at a movie theater. On Friday night, she worked from 4pm to 10pm and sold about 25 tickets every hour. Cameron says that the number of tickets, she has sold at any time (in hours) can be modeled by the function where the domain is and the range is . Is Cameron’s function, along with domain and range, correct?

Explain.

LT #1.2- Identify End Behavior: The end behavior of a graph describes the far left or right portion of the graph. Below are the four types of end behavior. Only for graphs whose domain and range are

NOTE: represents a blank space for you to fill in.

1. ASK FOR DESCRIPTION OF GRAPH

As

As

2. ASK FOR DESCRIPTION OF GRAPH

As

As

3. ASK FOR DESCRIPTION OF GRAPH

As

As

4. ASK FOR DESCRIPTION OF GRAPH

As

As

Examples # 5-7: Describe the end behavior.

5. ASK FOR DESCRIPTION OF GRAPH

6. ASK FOR DESCRIPTION OF GRAPH

7. ASK FOR DESCRIPTION OF GRAPH

You Try: Describe the domain/range or end behavior of the graph of each function.

8. GRAPH DESCRIPTION Line Segment   
Open dot   
Goes through

DOMAIN:  
RANGE:

9. ASK FOR DESCRIPTION OF GRAPH  
DOMAIN:  
RANGE:

10. Graph description: Line

DOMAIN:  
RANGE: