Math 60, Sections 1.5-1.6 Class Prep Assignment Name:_____

Watch the videos and take notes on this page Due at the Beginning of Next Class

Section 1.5: Set Notation and Types of Numbers

Set Notation

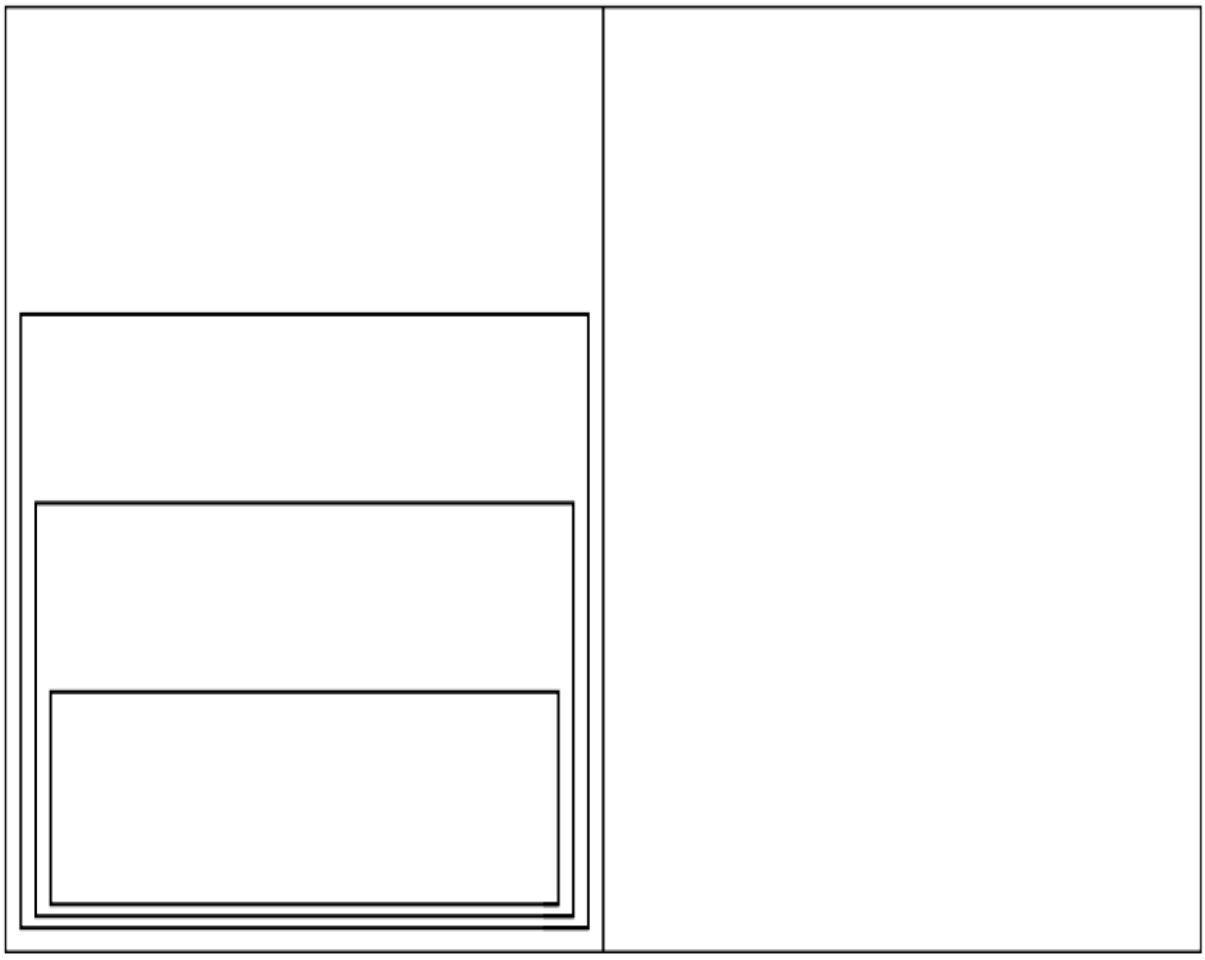
1. A set is a group or collection. We list the elements of a set in _____.

   a. What numbers can you roll on a 6-sided die? Write them in set notation.

   b. How many cats can a person have? Write the elements in set notation.

Sets of Numbers

2. List the sets of numbers and their notation.



3. Where do decimals fit in the sets of numbers?

Repeating Decimals | Terminating Decimals | Not repeating and Not Terminating

Section 1.6: Comparison Symbols and Interval Notation

4. Write the name of each symbol and give an example of how it is used.

$<$ $\leq$

$>$ $\geq$

$=$ $\neq$ $\approx$

5. Write < , > , or = to make a true statement.

a. $-4 \square 5$ b. $\frac{2}{5} \square -\frac{7}{5}$ c. $\frac{1}{2} \cdot \frac{1}{2} \square \frac{1}{2} + \frac{1}{2}$

d. $|-4| \square -|-4|$ e. $\frac{3}{4} \square 0.75$ f. $\frac{4}{9} \square 0.4$

Variables

A variable is a letter that we use to represent an unknown quantity. The variable x is the most common, but any letter can be used. We must define what the variable represents so it is clear.

Inequalities and Number Lines

6. Consider the age of a voter. What are all possibilities for this person's age?

a. Write the possibilities in words and symbols. Then define and use a variable.

b. Draw a number line representing the ages.

We have three mathematical ways to write sets: a number line graph, an interval and set-builder notation.

7. Complete following table of examples. (Note that $x \geq 2$ can also be written as $2 \leq x$.)

Inequality	Number Line Graph	Interval	Set-Builder Notation
a. $x \geq 2$ Spend at least 2 dollars to use your coupon.			
b. $y > 2$ Spend more than 2 dollars to use a credit card.			
c. $s \leq 5$ You can spend at most 5 dollars			
d. $t < 5$ You need to complete a job in less than 5 hours	Try this one after the video. You can just do the version without context.		