

Name\_\_\_\_\_

Core \_\_\_\_\_

### Unit 1 Test Study Guide

*SOL 8.2 Real Number System*

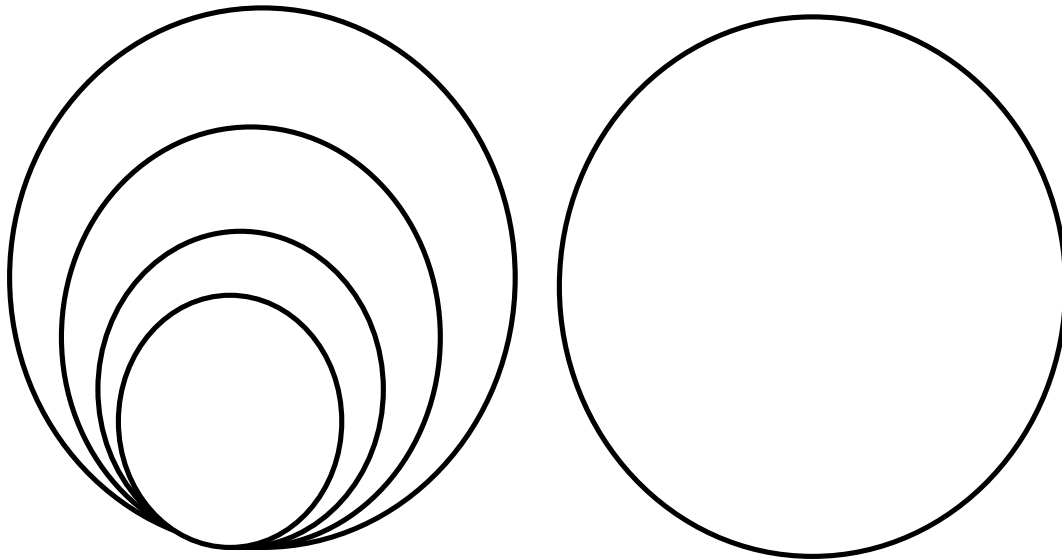
*SOL 8.5 Perfect Squares and Square Roots*

1. The following set of numbers belongs to which subset of the real number system?

$\{-4, -3, -2, -1, 0, 1, 2, 3, 4\}$

Answer: \_\_\_\_\_

2. Fill in the Venn Diagram of the Real Number System (Use labels and give an example of a number in each subset):



3. The product of any rational number and any irrational number will always be \_\_\_\_\_.

Directions #4-7: Place a check in every box that describes each number:

		Irrational	Rational	Natural / Counting	Whole	Integers
4.	67%					
5.	$\sqrt{5}$					
6.	$\frac{1}{3}$					
7.	-6					

8. A rational number is a number that can be expressed as a \_\_\_\_\_.

Rational numbers include:

a. \_\_\_\_\_ decimals

b. \_\_\_\_\_ decimals

9. Irrational numbers are \_\_\_\_\_ and \_\_\_\_\_.

10.  $\sqrt{71}$  is between \_\_\_\_\_ and \_\_\_\_\_.

11.  $-\sqrt{196}$  = \_\_\_\_\_

12. Plot the  $\sqrt{40}$  on the number line below:



13. What is the square of 9? \_\_\_\_\_

14. What is the difference between  $-\sqrt{100}$  and  $\sqrt{100}$ ?

15. William bought a bag of lawn fertilizer that will cover 400 sq. ft. What are the dimensions of square plot of lawn that the bag of fertilizer will cover?

16. George is carpeting a square room with dimensions 16 ft x 16 ft. What is the area of the room?