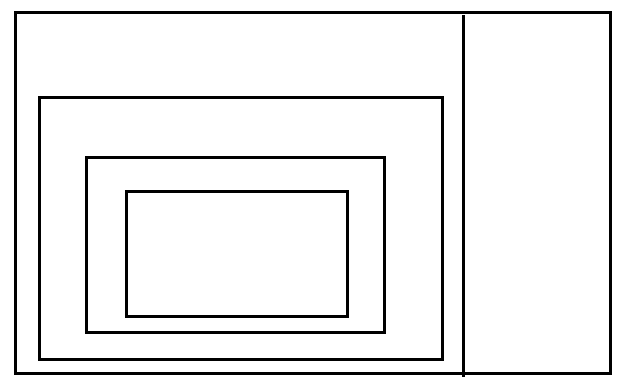
THE REAL NUMBER SYSTEM



Natural Numbers:

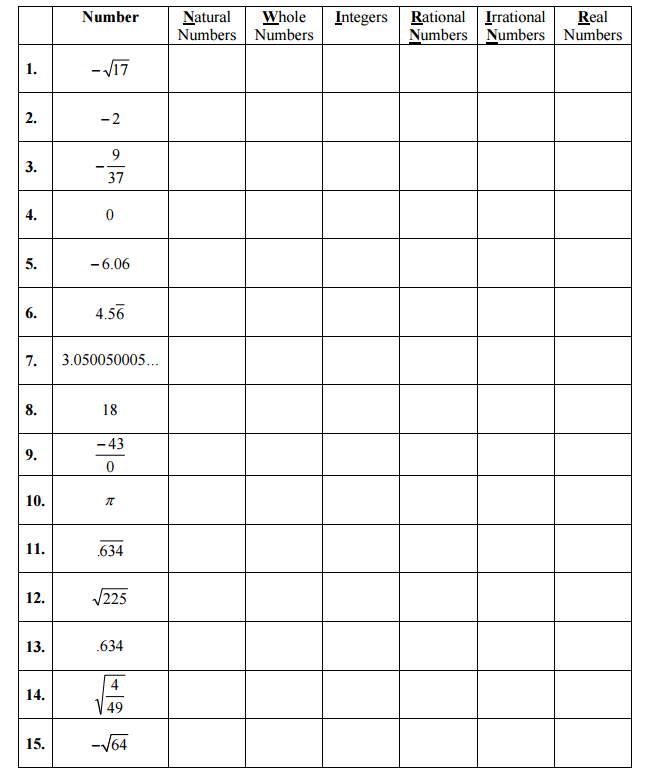
Whole Numbers:

Integers:

Rational Numbers:

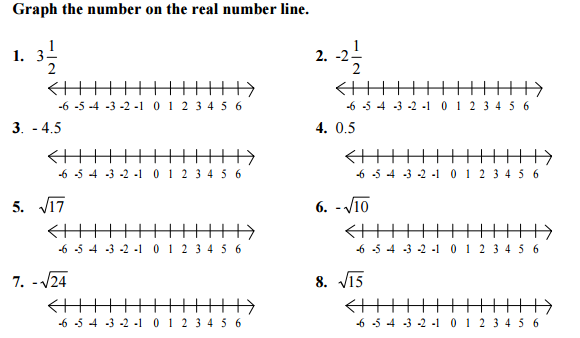
Irrational Numbers:

Real Numbers:



1. Your school is sponsoring a charity race. Which set of numbers does not contain the number of people *p* who participate in the race?
2. Natural numbers
3. Integers
4. Rational numbers
5. Irrational numbers

Ordering Numbers Based on Size



1. How do and compare? Use or
2. How do and compare? Use or
3. Let *a, b*, and *c* be real numbers such that *a < b* and *b < c*. How do *a* and *c* compare? Explain.

Problem Sets

1. What do the following mean?
2. Sum
3. Difference
4. Less than
5. Product
6. Quotient
7. Of
8. Answer **True** or **False** to the statements below. If false, explain why or provide a counter-example.
9. is a rational number
10. 0 is an integer
11. is a natural number
12. is an integer
13. is a rational number
14. is a Real number
15. is a whole number
16. is an integer
17. is a rational number
18. is a ratioanl number
19. All fractions are rational numbers
20. All integers are whole numbers
21. All irrational numbers are Real numbers
22. All negative numbers are integer

Writing Expressions

Variable:

Algebraic expression:

1. Fill in the table below for the total number of pages Eve reads if she reads 25 pages per hour

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Hours | 1 hour | 2 hours | 3 hours | 4 hours | 20 hours |
| Pages Read |  |  |  |  |  |

1. Write an expression for the number of pages she reads in hours.
2. Sam is 2 years younger than Sue, who is years old. Write an expression for Sam’s age
3. Lou drives at mi/h. write an expression for the number of miles that Lou drives in hours.
4. You start with $20 and save $5 per week. Write an algebraic expression that models the total amount you save in weeks
5. You had $150, but you’re spending per day. Write an algebraic expression that models the total amount you have in days.

Evaluating Expressions

1. What does the word “evaluate” mean?
2. What is the value of the expressions for the given values of the variables?
3. for and
4. for and
5. for and

Simplifying Algebra Expressions

1. Combine the like terms for
2. Combine like terms

Problem Sets

1. Simplify by combining like terms
2. Evaluate each expression for the given value of the variable
3. for
4. for
5. for
6. Wriute an algerbaic expression
7. 9 less than k
8. Six times the daily amount of fiber in your diet
9. The total number of seashells divided by 10
10. 4 more than twice x
11. For a walk-a-thon a sponsoir commited to give you a flat fee of $5 plus $3 for every mile you walk.
12. Write an expression for the total amount you will collect from your sponser at the end of the walk-a-thon
13. How much will you get for 30 miles walked?