

Name _____
Mrs. Roubos

Date _____
8A Period _____

Mathematical Definitions

1) Natural Number- Also known as _____. They are _____ and _____

2) Whole Number- The _____ and _____

3) Integer- The set of _____ and their _____

4) Perfect Square- The _____ of a number squared. (When you multiply a number by itself)

5) Square Root- Symbol: _____ (radical) One of the two _____ factors of a number. (The number you multiply by itself to get the perfect square)

6) Rational Number -

- Numbers that _____ be written as the _____ of two _____ where the denominator isn't _____
- Decimals that _____ or _____
- _____ and _____
- _____ square Roots

7) Irrational Number-

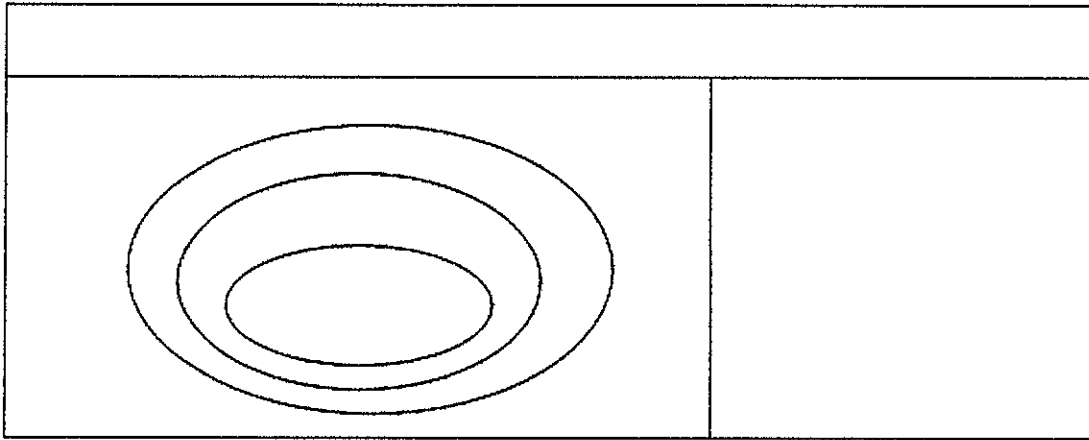
- Numbers that _____ be written as the _____ of two _____ where the denominator isn't _____
- _____ and _____ decimals.
- _____ square roots
- _____

8) Real Number-

9) Not real Number- (imaginary)

Practice Examples

A) Fill in the diagram using the 6 number sets from above.



B) Matching:

1. Rational Numbers_____

A. { 1, 2, 3, ...}

2. Integers_____

B. {... -3, -2, -1, 0, 1, 2, 3...}

3. Whole Numbers_____

C. {Union of Rational & Irrational #'s}

4. Irrational Numbers_____

D. { 0, 1, 2, 3 ...}

5. Natural Numbers_____

E. {The quotient of two integers}

6. Real Numbers_____

F. {Non-terminating, non-repeating decimals}

C) State whether the following are rational or irrational. Why?

1) .36 _____

2) $\frac{1}{2}$ _____

3) .182640462... _____

4) $\sqrt{17}$ _____

5) $.555\bar{5}$ _____

6) $\sqrt{64}$ _____

D) Classify each number as real or not real, natural, whole, integer, rational or irrational.

1) $\sqrt{9}$ _____

2) -35.9 _____

3) $\sqrt{-7}$ _____

4) $\sqrt{23}$ _____

5) $\frac{9}{0}$ _____

More Definitions

10) Operation- A process such as _____, _____, _____ & _____ performed in a specific sequences (_____)

11) Factor- A number that is _____ by another number to get a certain product.

12) Multiple - When 2 or more factors are _____, the _____ is a multiple.

13) Ratio- A comparison of two numbers. (usually written as a _____)

14) Inverse- The _____. (sign or operation)

* Additive inverse: _____ of a number, where the _____ of the two numbers is _____.

15) Reciprocal- (aka _____) one of two numbers whose _____ is _____.

16) Variable- a _____ or _____ used to represent another number.

17) Expression- A mathematical phrase that contains _____, _____, & _____ (no = sign)

* Numerical: contains only _____ and _____

* Algebraic: contains _____ one variable.

18) Equation- A mathematical sentence which state that two _____ are _____.

19) Term- Is a part of an _____ that is _____ or _____.

20) Coefficient- (of a term) is the _____ of the term.

21) Simplify- Means to _____ or _____ or _____ the question. Answers must be in simplest form always! (reduced, combined, factored)

22) Absolute Value- The distance of a number from _____ on a number line.

More Practice Examples

A) Fill Ins:

1. Another name for the set of natural number is: _____.

2. If zero is added to the set of natural numbers it becomes the set of _____.

3. The set of whole numbers combines with their opposites are called: _____.

4. A ratio is a fancy name for a: _____.

5. What are the factors of 20: _____.

6. List the first 16 perfect squares _____.

7. The opposite of squaring a number is called taking the _____.