

Assignment # \_\_\_\_\_ **Rational and Irrational Numbers**

Name \_\_\_\_\_

**Standard:** NS 1.4 Classify real numbers

Pre-Algebra, Period \_\_\_\_\_

Date \_\_\_\_\_

**Rational Numbers:** Numbers that END or have a repeating PATTERN. They make sense!  
Examples:  $\frac{1}{2}$ , 128.35, 0.1212..., 0.333333...

**Irrational Numbers:** Any number that represents a NON-REPEATING, NON-TERMINATING decimal. Crazy numbers that make no sense! Non-perfect squares.  
Examples: 0.120102001211..., 3.14151692345..., 0.34989238...

**Identify each number as rational or irrational.**

- |                         |                        |
|-------------------------|------------------------|
| 1. 432.8 _____          | 2. 0.34343434... _____ |
| 3. 4.101010001... _____ | 4. -0.33333... _____   |
| 5. 0.313111331... _____ | 6. 7.2345 _____        |
| 7. $\sqrt{7}$ _____     | 8. $\sqrt{16}$ _____   |
| 9. $\sqrt{52}$ _____    | 10. $\sqrt{3}$ _____   |
| 11. $\sqrt{49}$ _____   | 12. $\sqrt{36}$ _____  |

\_\_\_\_\_ 13. Which is an irrational number?

- A  $\sqrt{5}$       B  $\sqrt{9}$   
C -1      D  $\frac{2}{3}$

\_\_\_\_\_ 14. The number 5.3456435... is:

- A Rational      B Irrational  
C Both      D Neither

\_\_\_\_\_ 15. Which of the following is an irrational number?

- A  $\sqrt{144}$       B  $\sqrt{16}$   
C  $\sqrt{4}$       D  $\sqrt{3}$

\_\_\_\_\_ 16. Which is a rational number?

- A  $\frac{3}{4}$       B  $\sqrt{8}$   
C 3.14159265...      D  $\sqrt{38}$