

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 $\sqrt{38}$