

Identifying and Classifying Numbers

Name _____

1. Explain the difference between a rational and an irrational number.

Classify the following numbers as rational or irrational.

2. $\frac{1}{2}$

3. 8

4. $\sqrt{6}$

5. $\sqrt{16}$

6. π

7. List the set of all natural numbers.

8. List the set of whole numbers less than 4.

9. List the set of integers between -3 and 5 .

Classify the following numbers as rational, irrational, natural, whole and/or integer. (A number may belong to more than one set)

10. -3

12. $4\frac{2}{3}$

13. $\sqrt{3}$

14. 0

15. Using the following set of numbers:

$A = \{0.36, -\frac{3}{5}, 0.3\bar{6}, 0, -3, \sqrt{36}, 3.63363336 \dots\}$, place each element in the appropriate subset. (Numbers may belong to more than one subset)

rational numbers _____ irrational numbers _____

natural numbers _____ whole numbers _____

integers _____

True or False?

16. All whole numbers are rational numbers.

17. All integers are irrational numbers.

18. All natural numbers are integers.

Algebra I

Check each column that applies.

	Natural	Whole	Integer	Rational	Irrational	Real
1. 14						
2. $-\frac{2}{3}$						
3. 1.8						
4. $\sqrt{2}$						
5. 0						
6. -1						
7. $\frac{1}{5}$						
8. 2,098						
9. π						

True/ False Write the correct answer.

10. _____ 7 is a rational number.

11. _____ $\sqrt{2}$ can be written as a ratio of two integers.

12. _____ $2\frac{1}{5}$ is a rational number.

13. _____ $2\frac{1}{5}$ is an integer.

14. _____ 0 is an integer.

15. _____ -3 is a real number.