

**ALGEBRA 1**

Name \_\_\_\_\_

**1-3 PRACTICE:****REAL NUMBERS and the NUMBER LINE**

Name the subset(s) of the real numbers to which each number belongs.

1.  $\frac{4}{5}$

2.  $\sqrt{16}$

3.  $-12\pi$

4.  $3.\overline{48}$

5. List the set of perfect squares from  $1^2$  to  $15^2$ .

Simplify each expression.

6.  $\sqrt{81}$

7.  $-\sqrt{144}$

8.  $\sqrt{\frac{4}{25}}$

9.  $\sqrt{0.36}$

Estimate each expression to the nearest integer.

10.  $\sqrt{51}$

11.  $\sqrt{119}$

Find the approximate side length of each square figure to the nearest whole number.

12. A picture frame with an area of  $18 m^2$ .

13. A game board with an area of  $150 in^2$

Order the numbers in each set from least to greatest.

14.  $5.1, \sqrt{18}, \frac{28}{7}$

15.  $-\frac{13}{6}, -2.1, -\frac{26}{13}, -\frac{9}{4}$

Tell whether each statement is true or false.

If false, give an example to validate your reasoning.

16. All negative numbers are integers.

17. All integers are rational numbers.

18. All square roots are irrational numbers.

19. No positive numbers are integers.

20. **Error Analysis.** Explain why the below statement is incorrect.

A student says that  $\sqrt{7}$  is a rational number, because you can write it as a fraction  $\frac{\sqrt{7}}{1}$ .