Name: _____ **Unit 1:** Equations & Inequalities

Date: _____ **Bell:** _____ **Homework 1:** Real Numbers & Properties

Directions: Name ALL SETS to which each number belongs.

1. $-\frac{5}{3}$	**2.** $\sqrt{49}$	**3.** $0.\overline{6}$
4. π	**5.** $-\frac{36}{4}$	**6.** 1.125

7. Place the LETTER of each value in its location in the real number system below.

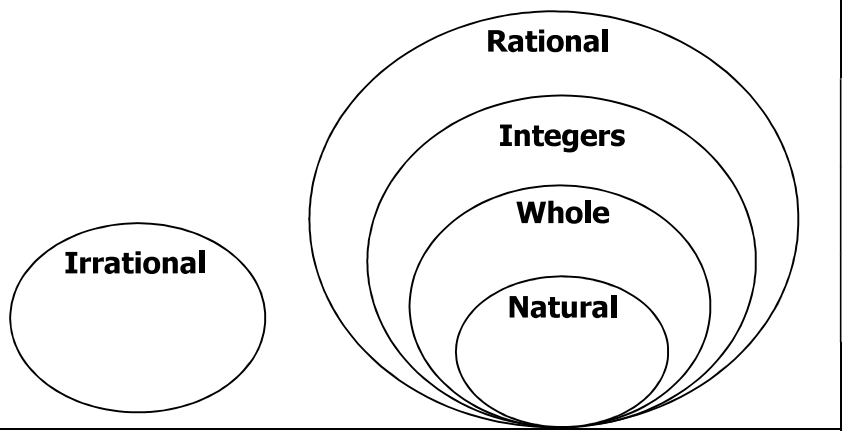
A. $-\sqrt{196}$ **B.** $\frac{\pi}{\pi}$

C. $2\frac{6}{7}$ **D.** $\sqrt{17}$

E. $1.8\overline{3}$ **F.** -0.75

G. $\sqrt{2}-\sqrt{2}$ **H.** $\sqrt{\frac{1}{4}}$

I. $\frac{35}{7}$ **J.** $\frac{1}{13}$



Directions: Name the property illustrated by each equation.

8. $-\frac{1}{3}+\frac{1}{3}=0$	**9.** $(9\cdot -4)\cdot 7=7\cdot(9\cdot -4)$
10. $6(2x-1)=6\cdot 2x-6\cdot 1$	**11.** $5x^2\cdot 1=5x^2$
12. $(8a+2b)+c=8a+(2b+c)$	**13.** $\frac{8x}{3}\cdot\frac{3}{8x}=1$
14. Name the additive inverse of $\sqrt{52}$	**15.** Name the multiplicative inverse of 9.

Directions: Answer true or false. If false, provide a counterexample.

16. Natural numbers are closed under division. _____

17. Negative numbers are closed under addition. _____

18. Prime numbers are closed under subtraction. _____