

Mathematics

Name _____ Grade: _____ Date: _____

Intersection of Sets

Write **T** for (True) and **F** for (False) on the blank spaces

1. The students in your class are a subset of all the students in your school. _____
2. Prime numbers are a subset of composite numbers. _____
3. If $A = \{x, y, z\}$, $B = \{s, t, u\}$ then $A \cap B$ is $\emptyset$. _____
4. If $n(C) = 4$ and $n(D) = 4$ then $C = D$. _____
5. The set of mothers in the world is finite. _____
6. All equivalent sets are equal. _____
7. If $X = \{a, b, c\}$ and $Y = \{c, d, e\}$ then $X \cup Y = \{a, b, c, d, e\}$. _____
8. Union is the set of members of 2 sets. _____
9. Two sets are disjoint when their intersection is an empty set. _

In the spaces provided place the symbol that will make the relationship true.

$=$	$\leftrightarrow$	$\cup$	$\cap$	$\subseteq$	$\not\subset$	$\in$	$\notin$	$\emptyset$	$\dots$
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- 1) If $A = \{\text{piano, guitar, violin}\}$ and $B = \{\text{guitar, piano, violin}\}$ then B _____ A
- 2) If $R = \{1, 3, 5\}$ and $S = \{5, 6, 7\}$ then R _____ $S = \{5\}$.
- 3) If $X = \{\text{denominational churches}\}$ $Y = \{\text{Baptist}\} \therefore Y$ _____ X .
- 4) If $Q = \{2, 3, 4, 5\}$ then 3 _____ Q .
- 5) $W = \{\text{man, woman, child}\}$ and $T = \{\text{leaf, tree, branch}\}$ so W _____ T
- 6) This symbol means it goes on forever _____.
- 7) If $M = \{d, e, f, g\}$ and $N = \{a, b, c, d, e\}$ then M _____ $N = \{a, b, c, d, e, f, g\}$
10. If $Y = \{4, 3, 2, 1\}$ and $Z = \{4, 5, 6, 7\}$ then 3 _____ Z
11. $W = \{\text{man, woman, child}\}$ and $T = \{\text{leaf, tree, branch}\}$ so $W \cap T$
= _____