

Last name _____

First name _____

LARSON—MATH 350—CLASSROOM WORKSHEET 04
The Language of Sets.

The Language of Sets

Let $A = \{7, 8, 10, 11\}$, $B = \{a, b, c\}$.

1. Find $|A|$.
2. Find $|B|$.
3. Find $A \times B$.
4. Find $B \times A$.

Now let $A = \{7, 8, 10, 11\}$, $B = \{2, 3, 7\}$

5. True or False: $A \subseteq B$.
6. Find any subset of A .
7. Find $A \cup B$.
8. Find $|A \cup B|$.
9. Find $A \cap B$.
10. Find $|A \cap B|$.
11. True or False: $|A \cup B| = |A| + |B| - |A \cap B|$.
12. Find $A \setminus B$.

13. Find $B \setminus A$

14. True or False: $A \setminus B = B \setminus A$.

15. Find $A \triangle B$.

The Number of Subsets of a Set

16. Find the decimal (base-10) representation for $(101)_2$.

17. Find the decimal (base-10) representation for $(1010)_2$.

18. Find the binary (base-2) representation for 47.

19. Find the binary (base-2) representation for the numbers 1 to 16.