Name _____   Date _____

Use your knowledge of Sets and Set Theory to answer each question below.

1. If U = {whole numbers}, A = {2, 3, 5, 7, 11} and B = {1, 3, 5, 9}, then which of the following statements is true?

    a) $A \subset B$ b) $B \subset A$ c) $A \subset U$ d) A is null

2. A = {0, 2, 4, 6, 8} and B = {1, 3, 5, 9}, which of the following could be the universal set? Circle all possible answers.

    A. U = {whole numbers < 10}

    B. U = {prime numbers}

    C. U = {single digits}

    D. U = {even whole numbers}

3. Complete each sentence below.

    a) The _____ set is the set of all elements under consideration.

    b) The _____ set is a subset of all sets.

    c) Two sets A and B are _____ if they have no elements in common.

    d) The _____ of set A is denoted as A' and is read as *A-prime*.

    e) The intersection between a set and its complement is the _____ set.

    f) In a _____, sets are represented by shapes; usually circles or ovals. The elements of a set are labeled within the circle.

    g) If the universal set contains sets A and B, then A _____ U.

    h) The _____ of a set and its complement is the universal set.