

Worksheet 6

Sets and Set Operation

1. Given A is the set of factors of 12. Write the set of A by
 - (a) List the elements
 - (b) Description
2. Given X is the set of multiples of 3, Y is the set of multiples of 6 and Z is the set of multiples of 9. State True or False for each of the following:
 - (a) $X \subset Y$
 - (b) $X \subset Z$
 - (c) $Z \subset Y$
 - (d) $Z \subset X$
3. Which one of the following is the null set?
 - A. The set of subsets of the null set
 - B. The set of even prime numbers
 - C. The set of factors of 7
 - D. The set of rational expressions for π
4. Given $S = \{a, b, c, d, e\}$.
 - (a) How many proper subsets does the set S have?
 - (b) Identify the cardinality of set S.