

Class 9 Mathematics - Exploring Algebraic Identities

Name: _____

Date: _____

Advanced Worksheet 1

Questions

1. Use the identity $(a + b)(a - b) = a^2 - b^2$ to simplify:
 $(x + 5)(x - 5)$
2. Simplify:
 $(2a + 3)(2a - 3)$
3. Simplify:
 $(5m + n)(5m - n)$
4. Find the value of 103×97 using an algebraic identity.
5. Find the value of 52×48 using an algebraic identity.
6. Find the value of 1002×998 using an algebraic identity.

Answer Key

1. $x^2 - 25$
2. $4a^2 - 9$
3. $25m^2 - n^2$
4. 9991
5. 2496
6. 999996