8th Grade Chapter 3 Test

November 7, 2025

Instructions: Show all your work clearly. Work in your composition notebook. Good luck!

1. Expand and simplify the following expressions:

   (a) $(a + 3)(a + 5)$

   (b) $(b - 1)(b + 6)$

   (c) $(x^2 + x + 2)(x - 3)$

   (d) $3x - (x + 2)(x - 1)$

2. Expand and simplify the following expressions:

   (a) $(a + 1)^2$

   (b) $(2a - 3)^2$

   (c) $(x - 5)(x + 5)$

   (d) $(2a + 3b)(2a - 3b)$

3. Factor the following expressions:

   (a) $a^2 + 6a + 9$

   (b) $b^2 - 16b + 64$

   (c) $25a^2 - 16$

   (d) $100t^2 - 140t + 49$