

ALGEBRA 2
PROBLEM SET #3

DUE DATE: AUGUST 24, 2023

Question 1. Identify which of the following statements are True or Sometimes True or Never True

- (a) $(x + 1)(x - 1) = x^2 - 1$
- (b) $(x + 1)(x - 1) = x^2 + 1$
- (c) $(x + 1)^2 = x^2 + 2x + 1$
- (d) $(x + 1)^2 = x^2 + 1$

Question 2. Expand out $(x + 5)(x + 5)$.

Question 3. Expand out $(x - 2)(x - 2)$.

Question 4. Expand out $(x + 9)(x + 9)$.

Question 5. Expand out $(x + 9)(x - 9)$.

Question 6. Expand out $(x + 2)(x - 2)$.

Question 7. Expand out $(x + \sqrt{2})(x - \sqrt{2})$

Question 8. Expand out $(x + 3)(x - 2)$

Question 9. Expand out $(x - 4)(x - 5)$.

Question 10. Expand out $(x + \frac{1}{2})(x - \frac{3}{2})$

Question 11 (Challenge). Expand out $(x + y + z)(x + y - z)$