

This worksheet will cover the following:

Objective 1: Properties and Real Numbers and Simplifying Expressions

Objective 2: Multiplication of Polynomials/Special Case Products: Perfect Square Trinomial

Objective 3: Factoring Trinomials by the AC-Method

Objective 4: Least Common Denominator (LCD)

Objective 1: Properties and Real Numbers and Simplifying Expressions

Simplify by clearing parentheses and combining *like* terms.

1. $-3(2t + 4w) + 8(2t - 4w)$

3. $\frac{1}{5}(15 - 4p) - \frac{1}{10}(10p + 5)$

2. $6(x + 3y) - (6x - 5y)$

4. $8k - 4(k - 1) + 7 - k$

Objective 2: Multiplication of Polynomials/Special Case Products: Perfect Square Trinomial

Square the binomials.

5. $(a + 5)^2$

6. $(a - 3)^2$

7. $(3 + 4q)^2$

Objective 3: Factoring Trinomials by the AC-Method

Factor the trinomials using the AC-method.

8. $3x^2 + 13x + 4$

9. $2p^2 - 3p - 2$

10. $6n^2 + 7n - 3$

11. $4w^2 - 9w + 2$

Objective 4: Least Common Denominator (LCD)

Identify the least common denominator.

12. $\frac{7}{12}; \frac{1}{18}$

13. $\frac{5}{6a^2b}; \frac{a}{12b}$

14. $\frac{6}{(w+3)(w-8)}; \frac{w}{(w-8)(w+1)}$

15. $\frac{r}{10r+5}; \frac{2}{16r+8}$

16. $\frac{2}{x-3}; \frac{x+1}{x^2+4x-21}$