Combine Like Terms, Use Distributive Property Worksheet Answer Key

Fact or Fiction: Factorials Have Nothing to Do With Factoring

Simplify.

1. $4xy + 3x^2y - 3xy + 2x^2y$
$= (4 - 3)xy + (3 + 2)x^2y$
$= xy + 5x^2y$

2. $3x^2 + 4x - 6x - 2x^2$
$= (3 - 2)x^2 + (4 - 6)x$
$= x^2 - 2x$

3. $4mn - 6n^2 + 2mn$
$= -6n^2 + (4 + 2)mn$
$= -6n^2 + 6mn$

4. $16xy + 6x - 4m - (4xy - 3m)$
$= 16xy + 6x - 4xy + 3m$
$= 12xy + 6x - m$

5. $8a + 4b + 6 - (3a + 2b + 4)$
$= 8a + 4b + 6 - 3a - 2b - 4$
$= 5a + 2b + 2$

Use the distributive property to simplify.

6. $-2(x + 4)$
$= -2x - 8$

7. $4x(x^2 + 3)$
$= 4x^3 + 12x$

8. $3x(-4 + 5y)$
$= -12x + 15xy$

9. $-6a(4b + c)$
$= -24ab - 6ac$

10. $4x^2(-3x + 2)$
$= -12x^3 + 8x^2$

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