

A.A.13: Add, subtract, and multiply monomials and polynomials.

1. 080623a, P.I. A.A.13

The expression $2x^2 - x^2$ is equivalent to

- [A] 2 [B] $-2x^4$ [C] x^2 [D] x^0

2. 080423a, P.I. A.A.13

The expression

$(3x^2 + 2xy + 7) - (6x^2 - 4xy + 3)$ is equivalent to

- [A] $3x^2 - 2xy + 4$ [B] $3x^2 - 6xy - 4$
[C] $-3x^2 + 6xy + 4$ [D] $-3x^2 - 2xy + 4$

3. 010707a, P.I. A.A.13

The expression $(2x^2 + 6x + 5) - (6x^2 + 3x + 5)$ is equivalent to

- [A] $-4x^2 - 3x + 10$ [B] $4x^2 + 3x - 10$
[C] $4x^2 - 3x$ [D] $-4x^2 + 3x$

4. 060511a, P.I. A.A.13

The expression $(x^2 - 5x - 2) - (-6x^2 - 7x - 3)$ is equivalent to

- [A] $7x^2 - 12x - 5$ [B] $7x^2 + 2x + 1$
[C] $7x^2 - 2x + 1$ [D] $7x^2 + 2x - 5$

5. 060923ia, P.I. A.A.13

When $4x^2 + 7x - 5$ is subtracted from $9x^2 - 2x + 3$, the result is

- [A] $-5x^2 + 9x - 8$ [B] $-5x^2 + 5x - 2$
[C] $5x^2 - 9x + 8$ [D] $5x^2 + 5x - 2$

6. 060019a, P.I. A.A.13

If $2x^2 - 4x + 6$ is subtracted from $5x^2 + 8x - 2$, the difference is

- [A] $-3x^2 - 12x + 8$ [B] $-3x^2 + 4x + 4$
[C] $3x^2 + 12x - 8$ [D] $3x^2 + 4x + 4$

7. 080819a, P.I. A.A.13

When $3g^2 - 4g + 2$ is subtracted from $7g^2 + 5g - 1$, the difference is

- [A] $-4g^2 - 9g + 3$ [B] $10g^2 + g + 1$
[C] $4g^2 + g + 1$ [D] $4g^2 + 9g - 3$

8. 010019a, P.I. A.A.13

When $3a^2 - 2a + 5$ is subtracted from $a^2 + a - 1$, the result is

- [A] $2a^2 - 3a - 6$ [B] $2a^2 - 3a + 6$
[C] $-2a^2 + 3a - 6$ [D] $-2a^2 + 3a + 6$

9. 080020a, P.I. A.A.13

When $3x^2 - 2x + 1$ is subtracted from $2x^2 + 7x + 5$, the result will be

- [A] $-x^2 + 5x + 6$ [B] $-x^2 + 9x + 4$
[C] $x^2 - 9x - 4$ [D] $x^2 + 5x + 6$

10. 080209a, P.I. A.A.13

When $-2x^2 + 4x + 2$ is subtracted from $x^2 + 6x - 4$, the result is

- [A] $2x^2 - 2x - 6$ [B] $3x^2 + 2x - 6$
[C] $-x^2 + 10x - 2$ [D] $-3x^2 - 2x + 6$

11. 010429a, P.I. A.A.13

If $2x^2 - x + 6$ is subtracted from $x^2 + 3x - 2$, the result is

- [A] $-x^2 + 2x - 8$ [B] $-x^2 + 4x - 8$
[C] $x^2 + 2x - 8$ [D] $x^2 - 4x + 8$

12. 010523a, P.I. A.A.13

When $3x^2 - 8x$ is subtracted from $2x^2 + 3x$, the difference is

- [A] $x^2 - 5x$ [B] $-x^2 - 5x$
[C] $-x^2 - 11x$ [D] $-x^2 + 11x$

13. 010619a, P.I. A.A.13

When $3a^2 - 7a + 6$ is subtracted from $4a^2 - 3a + 4$, the result is

- [A] $-a^2 - 4a + 2$ [B] $a^2 + 4a - 2$
[C] $7a^2 - 10a + 10$ [D] $a^2 - 10a - 2$

14. 080123a, P.I. A.A.13

Subtract $5x^2 - 7x - 6$ from $9x^2 + 3x - 4$.

15. 010934a, P.I. A.A.13

Subtract $2x^2 - 5x + 8$ from $6x^2 + 3x - 2$ and express the answer as a trinomial.

A.A.13: Add, subtract, and multiply monomials and polynomials.

[1] C _____

[2] C _____

[3] D _____

[4] B _____

[5] C _____

[6] C _____

[7] D _____

[8] C _____

[9] B _____

[10] B _____

[11] B _____

[12] D _____

[13] B _____

[2] $4x^2 + 10x + 2$, and appropriate work is shown, such as $(9x^2 + 3x - 4) - (5x^2 - 7x - 6)$.

[1] The setup is correct, but the distribution of the negative sign is incorrect.

or [1] $14x^2 - 4x - 10$, but appropriate work is shown.

or [1] $4x^2 + 10x + 2$, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[14] incorrect procedure. _____

[2] $4x^2 + 8x - 10$, and appropriate work is shown.

[1] Appropriate work is shown, but one computational error is made.

or [1] Appropriate work is shown, but one conceptual error is made, such as not distributing the negative sign or subtracting in the wrong order.

or [1] $4x^2 + 8x - 10$, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[15] incorrect procedure. _____