

A.A.13: Addition and Subtraction of Polynomials 3: Add, subtract, and multiply monomials and polynomials

- 1 The expression $(3x^2 + 2xy + 7) - (6x^2 - 4xy + 3)$ is equivalent to
 - 1) $-3x^2 - 2xy + 4$
 - 2) $3x^2 - 2xy + 4$
 - 3) $-3x^2 + 6xy + 4$
 - 4) $3x^2 - 6xy - 4$
- 2 The expression $(x^2 - 5x - 2) - (-6x^2 - 7x - 3)$ is equivalent to
 - 1) $7x^2 - 12x - 5$
 - 2) $7x^2 - 2x + 1$
 - 3) $7x^2 + 2x + 1$
 - 4) $7x^2 + 2x - 5$
- 3 The expression $(2x^2 + 6x + 5) - (6x^2 + 3x + 5)$ is equivalent to
 - 1) $-4x^2 + 3x$
 - 2) $4x^2 - 3x$
 - 3) $-4x^2 - 3x + 10$
 - 4) $4x^2 + 3x - 10$
- 4 When $3x^2 - 8x$ is subtracted from $2x^2 + 3x$, the difference is
 - 1) $-x^2 + 11x$
 - 2) $x^2 - 11x$
 - 3) $-x^2 - 5x$
 - 4) $x^2 - 5x$
- 5 When $5x + 4y$ is subtracted from $5x - 4y$, the difference is
 - 1) 0
 - 2) $10x$
 - 3) $8y$
 - 4) $-8y$
- 6 When $3g^2 - 4g + 2$ is subtracted from $7g^2 + 5g - 1$, the difference is
 - 1) $-4g^2 - 9g + 3$
 - 2) $4g^2 + g + 1$
 - 3) $4g^2 + 9g - 3$
 - 4) $10g^2 + g + 1$
- 7 When $4x^2 + 7x - 5$ is subtracted from $9x^2 - 2x + 3$, the result is
 - 1) $5x^2 + 5x - 2$
 - 2) $5x^2 - 9x + 8$
 - 3) $-5x^2 + 5x - 2$
 - 4) $-5x^2 + 9x - 8$
- 8 When $3a^2 - 2a + 5$ is subtracted from $a^2 + a - 1$, the result is
 - 1) $2a^2 - 3a + 6$
 - 2) $-2a^2 + 3a - 6$
 - 3) $2a^2 - 3a - 6$
 - 4) $-2a^2 + 3a + 6$
- 9 If $2x^2 - 4x + 6$ is subtracted from $5x^2 + 8x - 2$, the difference is
 - 1) $3x^2 + 12x - 8$
 - 2) $-3x^2 - 12x + 8$
 - 3) $3x^2 + 4x + 4$
 - 4) $-3x^2 + 4x + 4$
- 10 When $3x^2 - 2x + 1$ is subtracted from $2x^2 + 7x + 5$, the result will be
 - 1) $-x^2 + 9x + 4$
 - 2) $x^2 - 9x - 4$
 - 3) $-x^2 + 5x + 6$
 - 4) $x^2 + 5x + 6$

- 11 When $-2x^2 + 4x + 2$ is subtracted from $x^2 + 6x - 4$, the result is
 - 1) $-3x^2 - 2x + 6$
 - 2) $-x^2 + 10x - 2$
 - 3) $2x^2 - 2x - 6$
 - 4) $3x^2 + 2x - 6$
- 12 If $2x^2 - x + 6$ is subtracted from $x^2 + 3x - 2$, the result is
 - 1) $x^2 + 2x - 8$
 - 2) $x^2 - 4x + 8$
 - 3) $-x^2 + 2x - 8$
 - 4) $-x^2 + 4x - 8$
- 13 When $3a^2 - 7a + 6$ is subtracted from $4a^2 - 3a + 4$, the result is
 - 1) $a^2 + 4a - 2$
 - 2) $a^2 - 10a - 2$
 - 3) $-a^2 - 4a + 2$
 - 4) $7a^2 - 10a + 10$
- 14 If $2a^2 - 6a + 5$ is subtracted from $3a^2 - 2a + 3$, the result is
 - 1) $5a^2 - 8a + 8$
 - 2) $a^2 + 4a - 2$
 - 3) $-a^2 - 4a + 2$
 - 4) $a^2 - 8a + 8$
- 15 When $8x^2 + 3x + 2$ is subtracted from $9x^2 - 3x - 4$, the result is
 - 1) $x^2 - 2$
 - 2) $17x^2 - 2$
 - 3) $-x^2 + 6x + 6$
 - 4) $x^2 - 6x - 6$
- 16 When $2x^2 - 3x + 2$ is subtracted from $4x^2 - 5x + 2$, the result is
 - 1) $2x^2 - 2x$
 - 2) $-2x^2 + 2x$
 - 3) $-2x^2 - 8x + 4$
 - 4) $2x^2 - 8x + 4$
- 17 What is the result when $4x^2 - 17x + 36$ is subtracted from $2x^2 - 5x + 25$?
 - 1) $6x^2 - 22x + 61$
 - 2) $2x^2 - 12x + 11$
 - 3) $-2x^2 - 22x + 61$
 - 4) $-2x^2 + 12x - 11$
- 18 What is the result when $6x^2 - 13x + 12$ is subtracted from $-3x^2 + 6x + 7$?
 - 1) $3x^2 - 7x + 19$
 - 2) $9x^2 - 19x + 5$
 - 3) $9x^2 - 7x + 19$
 - 4) $-9x^2 + 19x - 5$
- 19 What is the result when $2x^2 + 3xy - 6$ is subtracted from $x^2 - 7xy + 2$?
 - 1) $-x^2 - 10xy + 8$
 - 2) $x^2 + 10xy - 8$
 - 3) $-x^2 - 4xy - 4$
 - 4) $x^2 - 4xy - 4$
- 20 When $6x^2 - 4x + 3$ is subtracted from $3x^2 - 2x + 3$, the result is
 - 1) $3x^2 - 2x$
 - 2) $-3x^2 + 2x$
 - 3) $3x^2 - 6x + 6$
 - 4) $-3x^2 - 6x + 6$
- 21 Subtract $5x^2 - 7x - 6$ from $9x^2 + 3x - 4$.
- 22 Subtract $2x^2 - 5x + 8$ from $6x^2 + 3x - 2$ and express the answer as a trinomial.

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|----|--------|------------------|
| 1 | ANS: 3 | REF: 080423a |
| 2 | ANS: 3 | REF: 060511a |
| 3 | ANS: 1 | REF: 010707a |
| 4 | ANS: 1 | REF: 010523a |
| 5 | ANS: 4 | REF: 061130ia |
| 6 | ANS: 3 | REF: 080819ia |
| 7 | ANS: 2 | REF: 060923ia |
| 8 | ANS: 2 | REF: 010019a |
| 9 | ANS: 1 | REF: 060019a |
| 10 | ANS: 1 | REF: 080020a |
| 11 | ANS: 4 | REF: 080209a |
| 12 | ANS: 4 | REF: 010429a |
| 13 | ANS: 1 | REF: 010619a |
| 14 | ANS: 2 | REF: spring9805a |
| 15 | ANS: 4 | REF: 061226ia |
| 16 | ANS: 1 | REF: 061322ia |
| 17 | ANS: 4 | REF: 011429ia |
| 18 | ANS: 4 | REF: 081428ia |
| 19 | ANS: 1 | REF: 011126ia |
| 20 | ANS: 2 | REF: 061414ia |

21 ANS:

$$4x^2 + 10x + 2$$

REF: 080123a

22 ANS:

$$4x^2 + 8x - 10$$

REF: 010934a