A.APR.A.1 Operations with Polynomials 2

1   The expression $3(x+4)-(2x+7)$ is equivalent to
   1) $x+5$
   2) $x-10$
   3) $x-3$
   4) $x+11$

2   Which expression is equivalent to
   $2(3g-4)-(8g+3)$?
   1) $-2g-1$
   2) $-2g-5$
   3) $-2g-7$
   4) $-2g-11$

3   When the expression $2x(x-4)-3(x+5)$ is written in simplest form, the result is
   1) $2x^2-11x-15$
   2) $2x^2-11x+5$
   3) $2x^2-3x-19$
   4) $2x^2-3x+1$

4   The expression $(-x^2+3x-7)-(4x^2+5x-2)$ is equivalent to
   1) $-5x^2-2x-9$
   2) $-5x^2-2x-5$
   3) $-5x^2+8x-9$
   4) $-5x^2+8x-5$

5   The expression $3(x^2-1)-(x^2-7x+10)$ is equivalent to
   1) $2x^2-7x+7$
   2) $2x^2+7x-13$
   3) $2x^2-7x+9$
   4) $2x^2+7x-11$

6   The expression $(5x^2-x+4)-3(x^2-x-2)$ is equivalent to
   1) $2x^2-2x+2$
   2) $2x^2+2x+10$
   3) $2x^4-2x^2+2$
   4) $2x^4-2x^2+10$

7   Which expression is equivalent to
   $3(x^2-2x+3)-(4x^2+3x-1)$?
   1) $-x^2+x+2$
   2) $-x^2-8x+7$
   3) $-x^2-3x+8$
   4) $-x^2-9x+10$

8   The expression $3(x^2+2x-3)-4(4x^2-7x+5)$ is equivalent to
   1) $-13x-22x+11$
   2) $-13x^2+34x-29$
   3) $19x^2-22x+11$
   4) $19x^2+34x-29$

9   If $C=2a^2-5$ and $D=3-a$, then $C-2D$ equals
   1) $2a^2+a-8$
   2) $2a^2-a-8$
   3) $2a^2+2a-11$
   4) $2a^2-a-11$

10   If $A=3x^2+5x-6$ and $B=-2x^2-6x+7$, then $A-B$ equals
   1) $-5x^2-11x+13$
   2) $5x^2+11x-13$
   3) $-5x^2-x+1$
   4) $5x^2-x+1$

11   Express in simplest form:
   $(3x^2+4x-8)-(-2x^2+4x+2)$

12   Subtract $5x^2+2x-11$ from $3x^2+8x-7$. Express the result as a trinomial.

13   If $C=G-3F$, find the trinomial that represents C when $F=2x^2+6x-5$ and $G=3x^2+4$.

14   Subtract $3x(x-2y)$ from $6(x^2-xy)$ and express your answer as a monomial.

A.APR.A.1 Operations with Polynomials 2
Answer Section

1 ANS: 1
$$3(x + 4) - (2x + 7) = 3x + 12 - 2x - 7 = x + 5$$

REF: 062102ai

2 ANS: 4
$$2(3g - 4) - (8g + 3) = 6g - 8 - 8g - 3 = -2g - 11$$

REF: 011707ai

3 ANS: 1
$$2x^2 - 8x - 3x - 15$$

$$2x^2 - 11x - 15$$

REF: 012301ai

4 ANS: 2   REF: 012406ai

5 ANS: 2
$$3(x^2 - 1) - (x^2 - 7x + 10)$$

$$3x^2 - 3 - x^2 + 7x - 10$$

$$2x^2 + 7x - 13$$

REF: 061610ai

6 ANS: 2
$$5x^2 - x + 4 - 3x^2 + 3x + 6 = 2x^2 + 2x + 10$$

REF: 062304ai

7 ANS: 4
$$3(x^2 - 2x + 3) - (4x^2 + 3x - 1)$$

$$3x^2 - 6x + 9 - 4x^2 - 3x + 1$$

$$-x^2 - 9x + 10$$

REF: 082403ai

8 ANS: 2
$$3(x^2 + 2x - 3) - 4(4x^2 - 7x + 5) = 3x^2 + 6x - 9 - 16x^2 + 28x - 20 = -13x^2 + 34x - 29$$

REF: 061803ai

9 ANS: 3
$$2a^2 - 5 - 2(3 - a) = 2a^2 - 5 - 6 + 2a = 2a^2 + 2a - 11$$

REF: 011911ai

10 ANS: 2   REF: 061403ai

11 ANS:
$5x^2 - 10$

REF: 061725ai

12 ANS:
$-2x^2 + 6x + 4$

REF: 011528ai

13 ANS:
$C = 3x^2 + 4 - 3\left(2x^2 + 6x - 5\right) = 3x^2 + 4 - 6x^2 - 18x + 15 = -3x^2 - 18x + 19$

REF: 061926ai

14 ANS:
$6x^2 - 6xy - (3x^2 - 6xy) = 3x^2$

REF: 062228ai