

### A.A.13: Multiplication of Polynomials 1: Add, subtract, and multiply monomials and polynomials

- 1 What is the product of  $-3x^2y$  and  $(5xy^2 + xy)$ ?
  - 1)  $-15x^3y^3 - 3x^3y^2$
  - 2)  $-15x^3y^3 - 3x^3y$
  - 3)  $-15x^2y^2 - 3x^2y$
  - 4)  $-15x^3y^3 + xy$
  
- 2 What is the product of  $(c + 8)$  and  $(c - 5)$ ?
  - 1)  $c^2 + 3c - 40$
  - 2)  $c^2 - 3c - 40$
  - 3)  $c^2 + 13c - 40$
  - 4)  $c^2 - 40$
  
- 3 What is the product of  $2r^2 - 5$  and  $3r$ ?
  - 1)  $6r^3 - 15r$
  - 2)  $6r^3 - 5$
  - 3)  $6r^2 - 15r$
  - 4)  $6r^2 - 15$
  
- 4 The expression  $(x - 6)^2$  is equivalent to
  - 1)  $x^2 - 36$
  - 2)  $x^2 + 36$
  - 3)  $x^2 - 12x + 36$
  - 4)  $x^2 + 12x + 36$
  
- 5 The expression  $(a^2 + b^2)^2$  is equivalent to
  - 1)  $a^4 + b^4$
  - 2)  $a^4 + a^2b^2 + b^4$
  - 3)  $a^4 + 2a^2b^2 + b^4$
  - 4)  $a^4 + 4a^2b^2 + b^4$
  
- 6 The expression  $(2x + 1)^2 - 2(2x^2 - 1)$  is equivalent to
  - 1)  $4x + 3$
  - 2)  $2x + 3$
  - 3)  $3$
  - 4)  $-1$

**A.A.13: Multiplication of Polynomials 1: Add, subtract, and multiply monomials and polynomials****Answer Section**

1 ANS: 1                   PTS: 2                   REF: 060807ia

2 ANS: 1

$$(c + 8)(c - 5) = c^2 - 5c + 8c - 40 = c^2 + 3c - 40$$

PTS: 2

REF: 060708a

3 ANS: 1

PTS: 2

REF: 010819a

4 ANS: 3

$$(x - 6)^2 = (x - 6)(x - 6) = x^2 - 6x - 6x + 36 = x^2 - 12x + 36$$

PTS: 2

REF: 060015a

5 ANS: 3

$$(a^2 + b^2)^2 = (a^2 + b^2)(a^2 + b^2) = a^4 + a^2b^2 + a^2b^2 + b^4 = a^4 + 2a^2b^2 + b^4$$

PTS: 2

REF: 010430a

6 ANS: 1

PTS: 2

REF: 088917siii