

hw-01a-polynomials-addition-multiplication

Due: 12/12/2015 at 06:00am EST.

Students will be able to:

- Add and Subtract Polynomials
- Multiply Polynomials

Functions and symbols that WeBWorK understands.

Links to some useful WeBWorK pages for students

1. (1 pt) When multiplied and simplified, the expression

$$7(3x^2 + 6x + 5) - 7(3x^2 + 3x + 2) = \underline{\hspace{2cm}}$$

2. (1 pt) When simplified, the expression

$$(5x^2 + 4x + 7) + (2x^2 - 2x - 6) = \underline{\hspace{2cm}}$$

3. (1 pt) Multiply and simplify, the following expression.

$$(4x - 6)(4x + 7) = \underline{\hspace{2cm}}$$

4. (1 pt) Multiply and simplify the following expression:

$$(5x - 3)(5x + 3) = \underline{\hspace{2cm}}$$

5. (1 pt) Find the following expression when multiplied and simplified.

$$(5x + 6)^2 = \underline{\hspace{2cm}}$$

6. (1 pt) Multiply and simplify the following expression.

$$(1 - 2x)^2 = \underline{\hspace{2cm}}$$

7. (1 pt) Multiply and simplify the following expression.

$$(7x + 7)(2x - 6) = \underline{\hspace{2cm}}$$

8. (1 pt) Multiply and simplify the following expression

$$(x - 7)(x^2 + 5x + 2) = \underline{\hspace{2cm}}$$

9. (1 pt) Given that

$$P(x) = 3x^3 - 5x - 4,$$

$$Q(x) = x^2 + 2x + 2,$$

$$R(x) = x^3 - 6$$

Then

$$P + Q = \underline{\hspace{2cm}}$$

and

$$R(P + Q) = \underline{\hspace{2cm}}$$

10. (1 pt) Simplify the following algebraic expression:

$$2(9x + 1) - 9 = \underline{\hspace{2cm}}$$

11. (1 pt) Simplify the following algebraic expression:

$$3(9y + 3) - 3(5y + 3) = \underline{\hspace{2cm}}$$

12. (1 pt) Simplify the following algebraic expression:

$$1 - 2(5 - (9y - 5)) = \underline{\hspace{2cm}}$$

13. (1 pt) Simplify the following algebraic expression:

$$2x^2 + 4 - [9(x^2 - 2) + 7] = \underline{\hspace{2cm}}$$