

## Simplifying Polynomials



Simplify each expression.

1)  $3x(x + 5x^2 - 2x^4) =$

2)  $18 + 3(-2x^3 - 4x^2) - 2 + x =$

3)  $13x(x + 2x^2 - 5x^4) =$

4)  $20 + 5x^3 - 3x^2 - 2 =$

5)  $(-x + 3x^2)x =$

6)  $(-x + 21x^2)x =$

7)  $(x - 12x^2)(x + 3) =$

8)  $(x - 9x^2)(x + 3) =$

9)  $2x(x + 7x^2 - 3x^4) =$

10)  $11 + 3(-3x^3 - 2x^2) - 4 + x =$

11)  $(-x + 11x^2)x =$

12)  $19 + 3(-2x^3 - 2x^2) - 2 + x =$

13)  $15x(x + 2x^2 - 7x^4) =$

## Answers of Simplifying Polynomials



Simplify each expression.

$$1) 3x(x + 5x^2 - 2x^4) = -6x^4 + 15x^3 + 3x^2$$

$$2) 18 + 3(-2x^3 - 4x^2) - 2 + x = -6x^3 - 12x^2 + x + 16$$

$$3) 13x(x + 2x^2 - 5x^4) = -65x^4 + 26x^3 + 13x^2$$

$$4) 20 + 5x^3 - 3x^2 - 2 = 5x^3 - 3x^2 + 18$$

$$5) (-x + 3x^2)x = 3x^3 - x^2$$

$$6) (-x + 21x^2)x = 21x^3 - x^2$$

$$7) (x - 12x^2)(x + 3) = -12x^3 - 35x^2 + 3x$$

$$8) (x - 9x^2)(x + 3) = -9x^3 - 26x^2 + 3x$$

$$9) 2x(x + 7x^2 - 3x^4) = -6x^4 + 14x^3 + 2x^2$$

$$10) 11 + 3(-3x^3 - 2x^2) - 4 + x = -9x^3 - 6x^2 + x + 7$$

$$11) (-x + 11x^2)x = 11x^3 - x^2$$

$$12) 19 + 3(-2x^3 - 2x^2) - 2 + x = -6x^3 - 6x^2 + x + 17$$

$$13) 15x(x + 2x^2 - 7x^4) = -105x^4 + 30x^3 + 15x^2$$