

5 · 10 · 15

Algebra

Chapter 6

Topic	Description & Homework
Collecting Like Terms Section 6.1 Pg. 298-301	Expressions, <u>Variable</u> , <u>Like terms</u> , <u>Unlike terms</u> , <u>Coefficient</u> , <u>Constant</u> Classwork: p. 300-1: 1-8 orally, 9, 10, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 39, 43, 44, 48, 51, 57a, 58a, c Homework: p. 300-1: 11, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 34, 36, 37, 38, 40, 42, 45, 46, 49, 50, 57b, d, 58b, d, 60

Expression: A math statement containing terms.

eg. $5x - 4y$

↑
variable

coefficients

Term: A term is an object created by multiplying factors together. Terms are separated from each other by +, -

eg. $5x^2y + 3xy^2 - 7x^2y$

like terms

eg. $3xy - 5xy^2 + 7x - 8$

↑
constant term

State the number of terms in each expression.

1. $a + b$ 2

2. $2s + t - 5$ 3

3. $x^2 - x + 4$ 3

4. $jkl + mn$ 2

State the coefficient(s) and the constant term in each expression.

5. $2y + 1$ Coe: 2 Const: 1

6. $n - 4$ Coeff: 1 Const: -4

7. $3x^2 - 2x + 5$

8. $3 + w - 5w^4$

Coeff: 3, -2 Const: 5

Coeff: -5, 1 Const: 3

Simplify.

9. $3x + 5x$

10. $15p - 9p$

= $6p$

Like Terms! Add/Sub Coefficients

leave the variable alone

pg 300 - 301

Simplify.

9. $3x + 5x = 8x$

11. $-21s + 12s$

Simplify.

13. $6r + 4r - 1r = 9r$

15. $-1w + 6w - 1w = 4w$

17. $-8q - 9q + 10q = -7q$

Simplify.

19. $3t + 5a - 2t = t + 5a$

21. $2a - b + 3a = 5a - b$

23. $-9p - 10q + 8p = -p - 10q$

Simplify.

25. $5c + d - 2c - d = 3c - 0d = 3c$

no need to write the term.

Simplify.

31. $5x + 10 + 5y - 3x + 1 = 2x + 5y + 11$

32. $3a - 4b - 5 + a - b$

33. $-7t + 2 + 8r + 9r - 8t = 17r - 15t + 2$

34. $-8 - 3z + 9x - 11 - 6z$

35. $8r - 11 - 18q + 5p + 7q$

36. $-4w + 7c - 8x - 9w - 3c$

37. $13j - 18d - 5d + 2j + 2c$

38. $-q + 7q + 11n + 11p - 8q$

Simplify.

39. $-p + 5q - 8r - 1q + 3p + 9r + 1 = 2p + 4q + r + 1$

40. $-2z + 3y - 10x - 4y + 4z - 3x$

41. $5q - 9s - 8r + 8q - 7r + 13s$

42. $-10 - a + 6c - 11 - 9c + 8a - d$

Simplify.

43. $2x^2 + x + x^2 + 4x = 3x^2 + 5x$

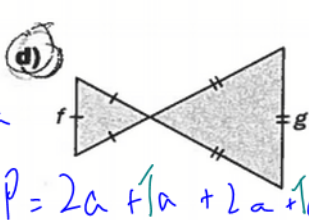
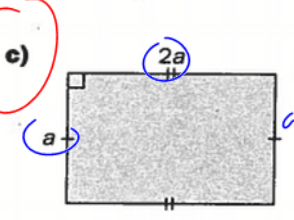
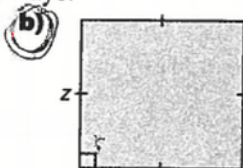
44. $a^2 - 4a - 5a + 3a^2 = 4a^2 - 9a$

45. $y^2 + 2y^3 + y^3 - 5y^2$

46. $3 + 4t^2 - 5t - t^2 - 7$

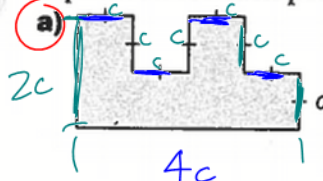
pg 301

57. Measurement Write an expression for each perimeter in 2 different ways.



$P = 2a + 1a + 2a + 1a = 6a$

58. Measurement Write and simplify an expression for each perimeter.



$P = 2c + 4c + 8c = 14c$

$P = 1m + 1m + n = 2m + n$