



◇ 「콘텐츠산업 진흥법 시행령」 제33조에 의한 표시
1) 제작연월일 : 2016-02-16
2) 제작자 : 교육지대(주)
3) 이 콘텐츠는 「콘텐츠산업 진흥법」에 따라 최초 제작일부터 5년간 보호됩니다.

◇ 「콘텐츠산업 진흥법」 외에도 「저작권법」에 의하여 보호되는 콘텐츠의 경우, 그 콘텐츠의 전부 또는 일부를 무단으로 복제하거나 전송하는 것은 콘텐츠산업 진흥법 외에도 저작권법에 의한 법적 책임을 질 수 있습니다.

계산시 참고사항

1. 일차식과 수의 곱셈과 나눗셈

- (1) (일차식)×(수): 분배법칙을 이용하여 일차식의 각 항에 수를 곱하여 계산한다.
(2) (일차식)÷(수)
① 분수꼴로 바꾸어 계산한다.
② 분배법칙을 이용하여 나누는 수의 역수를 일차식의 각 항에 곱한다.

2. 일차식의 덧셈과 뺄셈

- (1) 일차식의 덧셈
① 괄호가 있으면 분배법칙을 이용하여 괄호를 푼다.
② 교환법칙을 이용하여 동류항끼리 모아서 간단하게 정리한다.
(2) 일차식의 뺄셈: 빼는 식의 괄호 안의 각 항의 부호를 바꾸어서 더한다.

☞ 분배법칙

- $a(b+c) = ab+ac$
- $(a+b)c = ac+bc$



일차식과 수의 곱셈과 나눗셈

▣ 다음 식을 간단히 하여라.

1. $2x \times 3$

2. $8x \times (-3)$

3. $-9 \times (-2y)$

4. $-4a \times 7$

5. $-4x \times \frac{1}{2}$

6. $\frac{3}{5} \times (-15y)$

7. $12x \times \frac{5}{2}$

8. $-\frac{1}{7} \times 14y$

9. $0.2 \times (-5a)$

10. $(-2.5a) \times (-2)$

11. $0.5a \times (-4)$

12. $2x \times 3$

13. $-5x \times 4$

14. $-5(2x-1)$

15. $6y \times (-2)$

16. $-3x \times 5$

17. $4x \times (-3)$

18. $-4 \times (-y)$

19. $(-4+x) \times (-5)$

20. $\frac{5}{3}(3-6y)$

21. $\frac{1}{2}(-2x+4)$

22. $(16x+8) \times \left(-\frac{1}{4}\right)$

23. $2\left(\frac{1}{2}-3x\right)$

24. $0.2(5+10y)$

25. $-5\left(4x-\frac{2}{5}\right)$

26. $3(-2x-3)$

27. $3(2a-4)$

28. $4(-3x-5)$

29. $-2(3x-1)$

30. $(a-2) \times (-1)$

31. $(-6x) \times \left(-\frac{7}{3}\right)$

32. $2x \times \left(-\frac{3}{2}\right)$

33. $-7\left(2x-\frac{3}{7}\right)$

34. $(-3+2x) \times (-4)$

■ 다음 식을 간단히 하여라.

35. $12x \div (-4)$

36. $14b \div \frac{7}{5}$

37. $-2y \div \left(-\frac{1}{3}\right)$

38. $9x \div \frac{1}{3}$

39. $\frac{3}{12}a \div (-3)$

40. $\left(-\frac{3}{4}a\right) \div \left(-\frac{3}{2}\right)$

41. $\frac{2}{5}a \div \left(-\frac{1}{10}\right)$

42. $(-8y) \div \left(-\frac{1}{2}\right)$

43. $16x \div (-8)$

44. $(-18y) \div 3$

45. $(-15x) \div (-5)$

46. $15a \div (-3)$

47. $\frac{1}{4}x \div \left(-\frac{3}{8}\right)$

48. $-8y \div 2$

49. $18x \div (-6)$

50. $-6y \div 3$

51. $-9a \div 3$

52. $-8b \div (-2)$

53. $(8x - 24) \div 8$

54. $(-8x + 12) \div 4$

55. $(-2y) \div \frac{1}{4}$

56. $\left(-\frac{2}{5}a\right) \div \left(-\frac{2}{15}\right)$

57. $(9x - 12) \div \left(-\frac{3}{2}\right)$

58. $(4x + 12) \div (-4)$

59. $(12x - 6) \div (-6)$

60. $(8x - 12) \div (-4)$

61. $(-6x + 9) \div (-3)$

62. $(-10a + 5) \div 5$

63. $(-5x - 20) \div 5$

64. $(5x - 15) \div \left(-\frac{5}{2}\right)$

65. $\left(\frac{3}{2}a - 6\right) \div 3$

66. $\left(-4x - \frac{5}{6}\right) \div \frac{10}{3}$

67. $(0.2x - 0.5) \div \frac{1}{10}$

68. $-\frac{1}{2}(4x + 12) \div 3$

69. $(6y - 9) \times 4 \div 3$

70. $-5(y - 1) \div \frac{1}{2}$

71. $(2y + 3) \div \frac{2}{3} \times 4$

78. $7y - 3y$

79. $x - 3x$

80. $-3a - 2a$

81. $\frac{2}{3}y - \frac{1}{2}y$

82. $0.3x + 0.9x$

83. $-4x + 2x + 5x$

84. $-a - 2a - 3a$

85. $4x - 11x + 9x$

86. $-6y + 2y - 3y$

87. $5a - (-7a) + 3a$

88. $a - (-2a) - 3a$



일차식의 덧셈과 뺄셈

▣ 다음 식을 간단히 하여라.

72. $3x + 4x$

73. $\frac{1}{2}x + \frac{2}{3}x$

74. $4x + 8x$

75. $9a + 8a$

76. $\frac{4}{3}a - \frac{5}{4}a$

77. $5x - 2x$

▣ 다음 식을 간단히 하여라.

89. $(2x + 3) - (3x - 8)$

90. $-3(-2a + 1) - 5(3a - 2)$

91. $-2(4x+5)-6(x-2)$

92. $5a+7+4a+8$

93. $4x-2-3-5x$

94. $-5+6b-7-10b$

95. $-5y+16-11y-20$

96. $-3(-2a+1)-5(3a-2)$

97. $2(-3x+4)-3(-4x+1)$

98. $-(x-6)-3(2x+1)$

99. $4(-3x+1)-(3x-2)$

100. $-(3x+2)-(-4x+5)$

101. $3(-2a+1)-4(-3a-2)$

102. $a-(a+2)+3(a-1)$

103. $3(x+1)+(2x-1)-4(x-3)$

104. $3(a+1)-2(a-3)-3(a+5)$

105. $(-2y+1)+(-y+3)$

106. $(7b-3)+(-5b+9)$

107. $(-2x+5)+(8x-3)$

108. $-3(x-1)+2(2-x)$

109. $-2x+9-5(3-4x)-7$

110. $11x-(3x+7)$

111. $(2x-3)-(5x-7)$

112. $2(5x+1)-3(x-3)$

113. $3(2x-1)+(5x+1)$

114. $(-3x+5)-(4x-1)$

115. $(-9a-3)-(-5a-2)$

116. $(5a-3)-2(7a-6)$

117. $-7(x-1)+2(4x+3)$

118. $-(-5x+8)+3(3-x)$

119. $(3x+9)+2(5x-2)$

120. $3(-3x+8)+(9x+7)$

121. $2(2x-3)+3(5x-4)$

122. $4(2x+5)+3(5x-3)$

123. $2(2x-4)-3(2x-5)$

124. $4(-3x+y)-2(2x+3y)+5x-2y$

125. $2(x+1)+(4x-1)-5(x-2)$

정답 및 해설



1) $6x$

2) $-24x$

$\Rightarrow 8x \times (-3) = 8 \times (-3) \times x = -24x$

3) $18y$

$\Rightarrow -9 \times (-2y) = -9 \times (-2) \times y = 18y$

4) $-28a$

5) $-2x$

$\Rightarrow -4x \times \frac{1}{2} = -4 \times \frac{1}{2} \times x = -2x$

6) $-9y$

$\Rightarrow \frac{3}{5} \times (-15y) = \frac{3}{5} \times (-15) \times y = -9y$

7) $30x$

$\Rightarrow 12x \times \frac{5}{2} = 12 \times x \times \frac{5}{2} = 12 \times \frac{5}{2} \times x = 30x$

8) $-2y$

$\Rightarrow \left(-\frac{1}{7}\right) \times 14y = -\frac{1}{7} \times 14 \times y = -2y$

9) $-a$

$\Rightarrow 0.2 \times (-5a) = 0.2 \times (-5) \times a = -a$

10) $5a$

$\Rightarrow (-2.5a) \times (-2) = -2.5 \times a \times (-2) = -2.5 \times (-2) \times a = 5a$

11) $-2a$

$\Rightarrow 0.5a \times (-4) = 0.5 \times (-4) \times a = -2a$

12) $6x$

$\Rightarrow 2x \times 3 = 2 \times x \times 3 = 2 \times 3 \times x = 6x$

13) $-20x$

$\Rightarrow -5x \times 4 = -5 \times x \times 4 = -5 \times 4 \times x = -20x$

14) $-10x + 5$

$\Rightarrow -5(2x - 1) = -5 \times 2x - (-5) \times 1 = -10x + 5$

15) $-12y$

$\Rightarrow 6y \times (-2) = 6 \times y \times (-2) = 6 \times (-2) \times y = -12y$

16) $-15x$

$\Rightarrow -3x \times 5 = -3 \times x \times 5 = -3 \times 5 \times x = -15x$

17) $-12x$

$\Rightarrow 4x \times (-3) = 4 \times x \times (-3) = 4 \times (-3) \times x = -12x$

18) $4y$

$\Rightarrow -4 \times (-y) = -4 \times (-1) \times y = 4y$

19) $20 - 5x$

$\Rightarrow (-4 + x) \times (-5) = -4 \times (-5) + x \times (-5) = 20 - 5x$

20) $5 - 10y$

$\Rightarrow \frac{5}{3}(3 - 6y) = \frac{5}{3} \times 3 - \frac{5}{3} \times 6y = 5 - 10y$

21) $-x + 2$

$\Rightarrow \frac{1}{2}(-2x + 4) = \frac{1}{2} \times (-2x) + \frac{1}{2} \times 4 = -x + 2$

22) $-4x - 2$

$\Rightarrow (16x + 8) \times \left(-\frac{1}{4}\right) = 16x \times \left(-\frac{1}{4}\right) + 8 \times \left(-\frac{1}{4}\right) = -4x - 2$

23) $1 - 6x$

$\Rightarrow 2\left(\frac{1}{2} - 3x\right) = 2 \times \frac{1}{2} - 2 \times 3x = 1 - 6x$

24) $1 + 2y$

$\Rightarrow 0.2(5 + 10y) = \frac{2}{10} \times 5 + \frac{2}{10} \times 10y = 1 + 2y$

25) $-20x + 2$

$\Rightarrow -5\left(4x - \frac{2}{5}\right) = -5 \times 4x - (-5) \times \frac{2}{5} = -20x + 2$

26) $-6x - 9$

$\Rightarrow 3(-2x - 3) = 3 \times (-2x) - 3 \times 3 = -6x - 9$

27) $6a - 12$

$\Rightarrow 3(2a - 4) = 3 \times 2a - 3 \times 4 = 6a - 12$

28) $-12x - 20$

$\Rightarrow 4(-3x - 5) = 4 \times (-3x) - 4 \times 5 = -12x - 20$

29) $-6x + 2$

$\Rightarrow -2(3x - 1) = -2 \times 3x - (-2) \times 1 = -6x + 2$

30) $-a + 2$

$\Rightarrow (a - 2) \times (-1) = a \times (-1) - 2 \times (-1) = -a + 2$

31) $14x$

$\Rightarrow (-6x) \times \left(-\frac{7}{3}\right) = -6 \times x \times \left(-\frac{7}{3}\right) = -6 \times \left(-\frac{7}{3}\right) \times x = 14x$

32) $-3x$

$$\begin{aligned}\Rightarrow 2x \times \left(-\frac{3}{2}\right) &= 2 \times x \times \left(-\frac{3}{2}\right) \\ &= 2 \times \left(-\frac{3}{2}\right) \times x = -3x\end{aligned}$$

$$33) -14x + 3$$

$$\begin{aligned}\Rightarrow -7\left(2x - \frac{3}{7}\right) &= -7 \times 2x - (-7) \times \frac{3}{7} \\ &= -14x + 3\end{aligned}$$

$$34) 12 - 8x$$

$$\begin{aligned}\Rightarrow (-3 + 2x) \times (-4) &= -3 \times (-4) + 2x \times (-4) \\ &= 12 - 8x\end{aligned}$$

$$35) -3x$$

$$\begin{aligned}\Rightarrow 12x \div (-4) &= 12 \times x \times \left(-\frac{1}{4}\right) \\ &= 12 \times \left(-\frac{1}{4}\right) \times x = -3x\end{aligned}$$

$$36) 10b$$

$$\Rightarrow 14b \div \frac{7}{5} = 14 \times b \times \frac{5}{7} = 14 \times \frac{5}{7} \times b = 10b$$

$$37) 6y$$

$$\begin{aligned}\Rightarrow (-2y) \div \left(-\frac{1}{3}\right) &= -2 \times y \times (-3) \\ &= -2 \times (-3) \times y = 6y\end{aligned}$$

$$38) 27x$$

$$\Rightarrow 9x \div \frac{1}{3} = 9 \times x \times 3 = 9 \times 3 \times x = 27x$$

$$39) -\frac{a}{12}$$

$$\begin{aligned}\Rightarrow \frac{3}{12}a \div (-3) &= \frac{3}{12} \times a \times \left(-\frac{1}{3}\right) \\ &= \frac{3}{12} \times \left(-\frac{1}{3}\right) \times a = -\frac{a}{12}\end{aligned}$$

$$40) \frac{a}{2}$$

$$\begin{aligned}\Rightarrow \left(-\frac{3}{4}a\right) \div \left(-\frac{3}{2}\right) &= -\frac{3}{4} \times a \times \left(-\frac{2}{3}\right) \\ &= -\frac{3}{4} \times \left(-\frac{2}{3}\right) \times a = \frac{a}{2}\end{aligned}$$

$$41) -4a$$

$$\begin{aligned}\Rightarrow \frac{2}{5}a \div \left(-\frac{1}{10}\right) &= \frac{2}{5} \times a \times (-10) \\ &= \frac{2}{5} \times (-10) \times a = -4a\end{aligned}$$

$$42) 16y$$

$$\begin{aligned}\Rightarrow (-8y) \div \left(-\frac{1}{2}\right) &= -8 \times y \times (-2) \\ &= -8 \times (-2) \times y = 16y\end{aligned}$$

$$43) -2x$$

$$\Rightarrow 16x \div (-8) = 16x \times \left(-\frac{1}{8}\right) = 16 \times \left(-\frac{1}{8}\right) \times x = -2x$$

$$44) -6y$$

$$\begin{aligned}\Rightarrow (-18y) \div 3 &= (-18y) \times \frac{1}{3} = -18 \times \frac{1}{3} \times y \\ &= -6y\end{aligned}$$

$$45) 3x$$

$$\begin{aligned}\Rightarrow (-15x) \div (-5) &= (-15x) \times \left(-\frac{1}{5}\right) \\ &= -15 \times \left(-\frac{1}{5}\right) \times x = 3x\end{aligned}$$

$$46) -5a$$

$$47) -\frac{2}{3}x$$

$$48) -4y$$

$$\begin{aligned}\Rightarrow (-8y) \div 2 &= -8 \times y \times \frac{1}{2} \\ &= -8 \times \frac{1}{2} \times y = -4y\end{aligned}$$

$$49) -3x$$

$$\begin{aligned}\Rightarrow 18x \div (-6) &= 18 \times x \times \left(-\frac{1}{6}\right) \\ &= 18 \times \left(-\frac{1}{6}\right) \times x = -3x\end{aligned}$$

$$50) -2y$$

$$\begin{aligned}\Rightarrow -6y \div 3 &= -6 \times y \times \frac{1}{3} \\ &= -6 \times \frac{1}{3} \times y = -2y\end{aligned}$$

$$51) -3a$$

$$\begin{aligned}\Rightarrow -9a \div 3 &= -9 \times a \times \frac{1}{3} \\ &= -9 \times \frac{1}{3} \times a = -3a\end{aligned}$$

$$52) 4b$$

$$\begin{aligned}\Rightarrow -8b \div (-2) &= -8 \times b \times \left(-\frac{1}{2}\right) \\ &= -8 \times \left(-\frac{1}{2}\right) \times b \\ &= 4b\end{aligned}$$

$$53) x - 3$$

$$\begin{aligned}\Rightarrow (8x - 24) \div 8 &= (8x - 24) \times \frac{1}{8} \\ &= 8x \times \frac{1}{8} - 24 \times \frac{1}{8} = x - 3\end{aligned}$$

$$54) -2x + 3$$

$$\begin{aligned}\Rightarrow (-8x+12) \div 4 &= (-8x+12) \times \frac{1}{4} \\ &= -8x \times \frac{1}{4} + 12 \times \frac{1}{4} = -2x+3\end{aligned}$$

$$55) -8y$$

$$\begin{aligned}\Rightarrow (-2y) \div \frac{1}{4} &= (-2y) \times 4 = -2 \times 4 \times y \\ &= -8y\end{aligned}$$

$$56) 3a$$

$$\begin{aligned}\Rightarrow \left(-\frac{2}{5}a\right) \div \left(-\frac{2}{15}\right) &= \left(-\frac{2}{5}a\right) \times \left(-\frac{15}{2}\right) \\ &= -\frac{2}{5} \times \left(-\frac{15}{2}\right) \times a = 3a\end{aligned}$$

$$57) -6x+8$$

$$\begin{aligned}\Rightarrow (9x-12) \div \left(-\frac{3}{2}\right) &= (9x-12) \times \left(-\frac{2}{3}\right) \\ &= 9x \times \left(-\frac{2}{3}\right) - 12 \times \left(-\frac{2}{3}\right) \\ &= -6x+8\end{aligned}$$

$$58) -x-3$$

$$\begin{aligned}\Rightarrow (4x+12) \div (-4) &= (4x+12) \times \left(-\frac{1}{4}\right) \\ &= 4x \times \left(-\frac{1}{4}\right) + 12 \times \left(-\frac{1}{4}\right) \\ &= -x-3\end{aligned}$$

$$59) -2x+1$$

$$\begin{aligned}\Rightarrow (12x-6) \div (-6) &= (12x-6) \times \left(-\frac{1}{6}\right) \\ &= 12x \times \left(-\frac{1}{6}\right) - 6 \times \left(-\frac{1}{6}\right) \\ &= -2x+1\end{aligned}$$

$$60) -2x+3$$

$$\begin{aligned}\Rightarrow (8x-12) \div (-4) &= (8x-12) \times \left(-\frac{1}{4}\right) \\ &= 8x \times \left(-\frac{1}{4}\right) - 12 \times \left(-\frac{1}{4}\right) \\ &= -2x+3\end{aligned}$$

$$61) 2x-3$$

$$\begin{aligned}\Rightarrow (-6x+9) \div (-3) &= (-6x+9) \times \left(-\frac{1}{3}\right) \\ &= -6x \times \left(-\frac{1}{3}\right) + 9 \times \left(-\frac{1}{3}\right) \\ &= 2x-3\end{aligned}$$

$$62) -2a+1$$

$$\begin{aligned}\Rightarrow (-10a+5) \div 5 &= (-10a+5) \times \frac{1}{5} \\ &= -10a \times \frac{1}{5} + 5 \times \frac{1}{5} = -2a+1\end{aligned}$$

$$63) -x-4$$

$$\begin{aligned}\Rightarrow (-5x-20) \div 5 &= (-5x-20) \times \frac{1}{5} \\ &= -5x \times \frac{1}{5} - 20 \times \frac{1}{5} = -x-4\end{aligned}$$

$$64) -2x+6$$

$$\begin{aligned}\Rightarrow (5x-15) \div \left(-\frac{5}{2}\right) &= (5x-15) \times \left(-\frac{2}{5}\right) \\ &= 5x \times \left(-\frac{2}{5}\right) - 15 \times \left(-\frac{2}{5}\right) \\ &= -2x+6\end{aligned}$$

$$65) \frac{1}{2}a-2$$

$$\begin{aligned}\Rightarrow \left(\frac{3}{2}a-6\right) \div 3 &= \left(\frac{3}{2}a-6\right) \times \frac{1}{3} \\ &= \frac{3}{2}a \times \frac{1}{3} - 6 \times \frac{1}{3} = \frac{1}{2}a-2\end{aligned}$$

$$66) -\frac{6}{5}x-\frac{1}{4}$$

$$\begin{aligned}\Rightarrow \left(-4x-\frac{5}{6}\right) \div \frac{10}{3} &= \left(-4x-\frac{5}{6}\right) \times \frac{3}{10} \\ &= (-4x) \times \frac{3}{10} - \frac{5}{6} \times \frac{3}{10} \\ &= -\frac{6}{5}x-\frac{1}{4}\end{aligned}$$

$$67) 2x-5$$

$$\begin{aligned}\Rightarrow (0.2x-0.5) \div \frac{1}{10} &= \left(\frac{2}{10}x-\frac{5}{10}\right) \times 10 \\ &= \frac{2}{10}x \times 10 - \frac{5}{10} \times 10 \\ &= 2x-5\end{aligned}$$

$$68) -\frac{2}{3}x-2$$

$$\begin{aligned}\Rightarrow -\frac{1}{2}(4x+12) \div 3 &= (-2x-6) \div 3 \\ &= (-2x-6) \times \frac{1}{3} \\ &= -\frac{2}{3}x-2\end{aligned}$$

$$69) 8y-12$$

$$\begin{aligned}\Rightarrow (6y-9) \times 4 \div 3 &= (24y-36) \div 3 \\ &= (24y-36) \times \frac{1}{3} \\ &= 8y-12\end{aligned}$$

$$70) -10y+10$$

$$\begin{aligned}\Rightarrow -5(y-1) \div \frac{1}{2} &= (-5y+5) \div \frac{1}{2} \\ &= (-5y+5) \times 2 \\ &= -10y+10\end{aligned}$$

$$71) 12y+18$$

$$\begin{aligned}\Rightarrow (2y+3) \div \frac{2}{3} \times 4 &= (2y+3) \times \frac{3}{2} \times 4 \\ &= (2y+3) \times 6 \\ &= 12y+18\end{aligned}$$

$$72) 7x$$

$$73) \frac{7}{6}x$$

$$\Rightarrow \frac{3}{6}x + \frac{4}{6}x = \frac{7}{6}x$$

$$74) 12x$$

$$75) 17a$$

$$\Rightarrow 9a+8a = (9+8) \times a = 17a$$

$$76) \frac{1}{12}a$$

$$77) 3x$$

$$\Rightarrow 5x-2x = (5-2) \times x = 3x$$

$$78) 4y$$

$$\Rightarrow 7y-3y = (7-3) \times y = 4y$$

$$79) -2x$$

$$\Rightarrow x-3x = (1-3) \times x = -2x$$

$$80) -5a$$

$$\Rightarrow -3a-2a = (-3-2) \times a = -5a$$

$$81) \frac{1}{6}y$$

$$\Rightarrow \frac{2}{3}y - \frac{1}{2}y = \left(\frac{2}{3} - \frac{1}{2}\right) \times y = \left(\frac{4}{6} - \frac{3}{6}\right) \times y = \frac{1}{6}y$$

$$82) 1.2x$$

$$\Rightarrow 0.3x+0.9x = (0.3+0.9) \times x = 1.2x$$

$$83) 3x$$

$$\Rightarrow -4x+2x+5x = (-4+2+5) \times x = 3x$$

$$84) -6a$$

$$\Rightarrow -a-2a-3a = (-1-2-3) \times a = -6a$$

$$85) 2x$$

$$\Rightarrow 4x-11x+9x = (4-11+9) \times x = 2x$$

$$86) -7y$$

$$\Rightarrow -6y+2y-3y = (-6+2-3) \times y = -7y$$

$$87) 15a$$

$$\Rightarrow 5a-(-7a)+3a = (5+7+3) \times a = 15a$$

$$88) 0$$

$$\Rightarrow a-(-2a)-3a = (1+2-3) \times a = 0$$

$$89) -x+11$$

$$90) -9a+7$$

$$\Rightarrow (\text{주어진 식}) = 6a-3-15a+10 = -9a+7$$

$$91) -14x+2$$

$$\Rightarrow (\text{주어진 식})$$

$$= -8x-10-6x+12 = -14x+2$$

$$92) 9a+15$$

$$\Rightarrow (\text{주어진 식}) = 5a+4a+7+8 = 9a+15$$

$$93) -x-5$$

$$\Rightarrow (\text{주어진 식}) = 4x-5x-2-3 = -x-5$$

$$94) -4b-12$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= 6b-10b-5-7 \\ &= -4b-12\end{aligned}$$

$$95) -16y-4$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= -5y-11y+16-20 \\ &= -16y-4\end{aligned}$$

$$96) -9a+7$$

$$\Rightarrow (\text{주어진 식}) = 6a-3-15a+10 = -9a+7$$

$$97) 6x+5$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= -6x+8+12x-3 \\ &= -6x+12x+8-3 \\ &= 6x+5\end{aligned}$$

$$98) -7x+3$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= -x+6-6x-3 \\ &= -x-6x+6-3 \\ &= -7x+3\end{aligned}$$

$$99) -15x+6$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= -12x+4-3x+2 \\ &= -12x-3x+4+2 \\ &= -15x+6\end{aligned}$$

$$100) x-7$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= -3x-2+4x-5 \\ &= -3x+4x-2-5 \\ &= x-7\end{aligned}$$

$$101) 6a+11$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= -6a+3+12a+8 \\ &= -6a+12a+3+8 \\ &= 6a+11\end{aligned}$$

$$102) 3a-5$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= a-a-2+3a-3 \\ &= a-a+3a-2-3 \\ &= 3a-5\end{aligned}$$

$$103) x+14$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= 3x + 3 + 2x - 1 - 4x + 12 \\ &= 3x + 2x - 4x + 3 - 1 + 12 \\ &= x + 14\end{aligned}$$

$$104) -2a - 6$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= 3a + 3 - 2a + 6 - 3a - 15 \\ &= 3a - 2a - 3a + 3 + 6 - 15 \\ &= -2a - 6\end{aligned}$$

$$105) -3y + 4$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= -2y + 1 - y + 3 \\ &= -2y - y + 1 + 3 = -3y + 4\end{aligned}$$

$$106) 2b + 6$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= 7b - 3 - 5b + 9 \\ &= 7b - 5b - 3 + 9 = 2b + 6\end{aligned}$$

$$107) 6x + 2$$

$$108) -5x + 7$$

$$\Rightarrow (\text{주어진 식}) = -3x + 3 + 4 - 2x = -5x + 7$$

$$109) 18x - 13$$

$$\begin{aligned}\Rightarrow -2x + 9 - 5(3 - 4x) - 7 \\ = -2x + 9 - 15 + 20x - 7 \\ = 18x - 13\end{aligned}$$

$$110) 8x - 7$$

$$\Rightarrow (\text{주어진 식}) = 11x - 3x - 7 = 8x - 7$$

$$111) -3x + 4$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= 2x - 3 - 5x + 7 \\ &= 2x - 5x - 3 + 7 \\ &= -3x + 4\end{aligned}$$

$$112) 7x + 11$$

$$\Rightarrow 2(5x + 1) - 3(x - 3) = 10x + 2 - 3x + 9 = 7x + 11$$

$$113) 11x - 2$$

$$\Rightarrow 3(2x - 1) + (5x + 1) = 6x - 3 + 5x + 1 = 11x - 2$$

$$114) -7x + 6$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= -3x + 5 - 4x + 1 \\ &= -3x - 4x + 5 + 1 \\ &= -7x + 6\end{aligned}$$

$$115) -4a - 1$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= -9a - 3 + 5a + 2 \\ &= -9a + 5a - 3 + 2 \\ &= -4a - 1\end{aligned}$$

$$116) -9a + 9$$

$$\Rightarrow 5a - 3 - 14a + 12 = -9a + 9$$

$$117) x + 13$$

$$\Rightarrow -7(x - 1) + 2(4x + 3) = -7x + 7 + 8x + 6 = x + 13$$

$$118) 2x + 1$$

$$\Rightarrow -(-5x + 8) + 3(3 - x) = 5x - 8 + 9 - 3x = 2x + 1$$

$$119) 13x + 5$$

$$\Rightarrow (3x + 9) + 2(5x - 2) = 3x + 9 + 10x - 4 = 13x + 5$$

$$120) 31$$

$$\Rightarrow 3(-3x + 8) + (9x + 7) = -9x + 24 + 9x + 7 = 31$$

$$121) 19x - 18$$

$$\Rightarrow 2(2x - 3) + 3(5x - 4) = 4x - 6 + 15x - 12 = 19x - 18$$

$$122) 23x + 11$$

$$\Rightarrow 4(2x + 5) + 3(5x - 3) = 8x + 20 + 15x - 9 = 23x + 11$$

$$123) -2x + 7$$

$$\Rightarrow (\text{주어진 식}) = 4x - 8 - 6x + 15 = -2x + 7$$

$$124) -11x - 4y$$

$$\begin{aligned}\Rightarrow -12x + 4y - 4x - 6y + 5x - 2y \\ = -11x - 4y\end{aligned}$$

$$125) x + 11$$

$$\begin{aligned}\Rightarrow (\text{주어진 식}) &= 2x + 2 + 4x - 1 - 5x + 10 \\ &= 2x + 4x - 5x + 2 - 1 + 10 \\ &= x + 11\end{aligned}$$