



◇ 「콘텐츠산업 진흥법」 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. 혼합계산 순서

- (1) 거듭제곱이 있으면 거듭제곱을 가장 먼저 계산한다.
- (2) 괄호가 있으면 괄호 안을 먼저 계산한다.
이때 소괄호 (), 중괄호 { }, 대괄호 [] 순서로 계산한다.
- (3) 곱셈과 나눗셈을 계산한다.
- (4) 덧셈과 뺄셈을 계산한다.

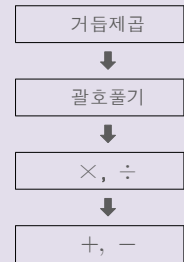
2. 새로운 계산 기호

- (1) 주어진 연산의 규칙을 잘 이해하는 것이 중요하다.
- (2) 문자의 순서에 주의하여 계산한다.

3. 유리수의 부호

두 유리수 a, b 에 대하여

- (1) $a \times b > 0$, $a \div b > 0$ 이면 a, b 는 서로 같은 부호
- (2) $a \times b < 0$, $a \div b < 0$ 이면 a, b 는 서로 다른 부호



혼합계산

■ 다음 혼합계산의 순서대로 기호를 나열하여라.

$$1. \quad -\frac{1}{3} - \left\{ -1 + \frac{5}{2} \times \left(-\frac{3}{5} \right)^2 \right\} \times 2$$

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$$2. \quad 2 - (-3) \times \{ [(+4) - (-1)] \div 5 \}$$

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$$3. \quad (-3) \times \{ (+8) \div (-3)^2 + (-2) \} - 7$$

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$$4. \quad -3 \div \{ 2 + 9 \div (-2)^4 \} + 7$$

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$$5. \quad (+12) - [27 \div \{ (-3)^2 + (+10) \}] + (-2)$$

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$$6. \quad (-6) - \frac{1}{4} \div \left\{ \left(7 - \frac{2}{3} \right) \times \frac{5}{9} \right\}$$

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$$7. \quad 15 + \frac{1}{4} \div \left\{ \left(-\frac{2}{3} + \frac{1}{5} \right) \times \frac{1}{2} \right\}$$

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$$8. \quad 25 + \frac{4}{3} \times \left[\left\{ -\frac{5}{9} - \left(+\frac{7}{8} \right) \right\} \div \frac{15}{4} \right]$$

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 \ominus \ominus \ominus \ominus

■ 다음 식의 계산 순서를 나열하고, 식의 값을 구하여라.

$$9. \quad 4 \times \left[\left\{ \frac{3}{2} + (-3)^2 \div \frac{6}{5} \right\} - 2 \right]$$

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 \ominus \ominus \ominus \ominus \ominus

$$10. \quad [-1 - \{(3-4) \times 4 - 5\}] \div 4$$

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 \ominus \ominus \ominus \ominus \ominus

$$11. \quad (-2) \times [3 - \{4 + 2 \times (-3)\} \div 2]$$

\uparrow \uparrow \uparrow \uparrow \uparrow
 \ominus \ominus \ominus \ominus \ominus

$$12. \quad 8 - \left\{ (-2)^2 \times \frac{3}{16} + \frac{3}{4} \right\} \div \frac{3}{10}$$

\uparrow \uparrow \uparrow \uparrow \uparrow
 \ominus \ominus \ominus \ominus \ominus

$$13. \quad 3 - \left\{ (-3)^3 + 15 \div \frac{5}{3} \right\} \times \frac{5}{9}$$

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 \ominus \ominus \ominus \ominus \ominus

■ 다음을 계산하여라.

$$14. \quad (-3) - (+6) \div (-2)$$

$$15. \quad \frac{3}{4} - \left(-\frac{3}{2} \right)^3 \div \frac{9}{4}$$

$$16. \quad 5 \times (-1)^{202} \div \left(4 - \frac{1}{4} \right)$$

$$17. \quad -4 \times (1-4) \div \left(-\frac{2}{3} \right)$$

$$18. \quad \frac{2}{3} - \left(-\frac{5}{3} \right) \div \frac{5}{2}$$

$$19. \quad \frac{2}{3} + \left(-\frac{1}{3} \right)^2 \times \frac{3}{4}$$

$$20. \quad (-3)^2 - 18 \div \left(-\frac{3}{2} \right)^2$$

$$21. \quad 10 - 20 \div 4 + 3 \times 2$$

$$22. \quad 6 \times \{12 - (5+1)\}$$

$$23. \quad 24 \div \{(7-4) \times 2\}$$

24. $2 - 2 \times \{6 \div (-4 + 7)\}$

25. $6 + \{4 \times (15 \div 5) - 7\} - 2$

26. $4 \times 6 - 12 + 15 \div 5$

27. $4^2 + 3 \times (-12) \div 6 - 5$

28. $18 \div (-3)^2 \times 6 + 15 - 9$

29. $13 - 6 \times \left\{1 + \left(\frac{1}{2} - \frac{2}{3}\right)\right\}$

30. $\frac{4}{5} \times \left\{\left(+\frac{3}{4}\right) - (-3)\right\} - \frac{5}{2}$

31. $-2 - \{1 - (14 - 5)\}$

32. $-11 - [-2 + \{5 - (2 + 3)\}]$

33. $-\frac{1}{5} + \left\{1 - \left(\frac{3}{5} - \frac{2}{5}\right)\right\}$

34. $-\frac{2}{3} - \left\{-\frac{1}{6} + \left(-\frac{1}{3} + \frac{2}{3}\right)\right\}$

35. $36 \div 9 + \{2 + (-4) \times 3\}$

36. $21 - \{4 + (-3)^2 \times 4 - 11\}$

37. $-2 + [-3 + \{(-3) \times 2 - 1\}]$

38. $\left(-\frac{1}{2}\right)^2 \times \{(-2)^2 \times 3 + (-4)\} \div (-1)^3$

39. $-1.5 + \{0.5 + (-0.7 + 0.3)\}$

40. $-\{2.3 + (-0.3 + 0.5)\} - 0.9$

41. $-2^2 + (-3)^2 - 18 \times \left(-\frac{2}{3}\right)$

42. $-\frac{5}{2} - [-2 + \{2.5 - (1.5 - 0.5)\}]$

43. $\left\{(8 - 3) \div \frac{10}{3}\right\} - 3^2 \times (-2)$

44. $5 - \{(-2)^3 - (1 - 3)\} \div 4$

45. $\left|-\frac{3}{4}\right| \times \left\{\left(-\frac{3}{4}\right) \div \left|\frac{1}{12}\right| + 3\right\}$

$$46. \quad \frac{5}{3} + \left(-\frac{2}{3}\right) \times \left\{ \left(\frac{3}{4} - \frac{1}{2}\right) \div \left(-\frac{1}{2}\right)^2 \right\}$$

$$47. \quad 24 \times \left\{ \frac{3}{4} + (-2)^2 \times \frac{1}{16} - \frac{1}{2} \right\} - 12$$

$$48. \quad \frac{4}{11} \times \left(-\frac{33}{28}\right) + (-2)^3 \div \left(-\frac{14}{5}\right)$$

$$49. \quad 5 - \left[\frac{2}{3} + (-1)^3 \times \left\{ 3^2 \div \left(-\frac{3}{4}\right) + 8 \right\} \right]$$

$$50. \quad -4^2 - (-2) \div \left[\left\{ (-2)^5 \times \left(\frac{5}{2} - 2\right) \times \frac{3}{4} \right\} \right]$$

$$51. \quad -4^2 \times \left[-3 \div 6 + \frac{5}{3} \times \{-2 - (-2)^2\} \right]$$

$$52. \quad 5 - \left(-\frac{2^2}{3}\right) - \left[\left\{ (-3)^2 + \left(-\frac{11}{2}\right) \right\} \times 5 \right] \div \frac{5}{4}$$

$$53. \quad \left(-\frac{1}{3}\right)^2 \times 27 - \left\{ 8 \div \left(\frac{2}{5} + \frac{2}{15}\right) \right\}$$

$$54. \quad \frac{2}{3} - \left\{ -8 - \frac{1}{7} \div \left(-\frac{2}{7}\right) \right\} \times \frac{1}{3}$$

$$55. \quad (-1)^3 - \left\{ -2 + \frac{3}{4} \times \left(1 - \frac{1}{3}\right) \right\} \div \frac{1}{2}$$

$$56. \quad 3 - \left[\frac{1}{2} + (-1)^3 \div \left\{ 4 \times \left(-\frac{1}{2}\right) + 8 \right\} \right] \times 2$$

$$57. \quad -3^2 - \left[\frac{2}{3} + (-1)^3 \times \left\{ 2^2 \div \left(-\frac{2}{5}\right) + 8 \right\} \right]$$

$$58. \quad -\frac{9}{8} - \left[\left(-\frac{1}{2}\right)^2 - \left\{ (-3) - \frac{5}{9} \div \left(-\frac{2}{3}\right) \right\} \times \frac{3}{4} \right]$$

$$59. \quad 6 + 3 \times \left[\{(-2)^4 - 10\} \div \frac{4}{3} + \frac{7}{2} \right] \div 12$$

$$60. \quad 9 - \left[(-4)^2 \div 2 \times \left\{ \frac{2}{5} + (-5)^2 \div \frac{125}{8} \right\} - 4 \right]$$

$$61. \quad \left[\left\{ -4 \times \left(\frac{3}{4} - \frac{1}{3}\right) \right\} \div 2 + \left(-\frac{2}{3}\right) \right] - (-1.5)$$

■ 다음 빈칸에 알맞은 수를 구하여라.

$$62. \left(-\frac{3}{2}\right)^3 \div \square \times \frac{7}{12} = \frac{7}{8}$$

$$63. 5 \div \left(-\frac{2}{7}\right) \div \square = \frac{3}{4}$$

$$64. -12 \div \square \div \left(-\frac{1}{2}\right)^2 = -6$$

$$65. \frac{3}{7} \div \square \times \left(-\frac{5}{2}\right)^2 = -\frac{15}{14}$$

$$66. \left(\frac{5}{3} - \frac{1}{6}\right)^2 \div \square + 2 = \frac{43}{8}$$

$$67. \left(-\frac{1}{4}\right) \div \left(-\frac{1}{2}\right)^3 - \square \times \left\{\frac{4}{3} + (-2)\right\} = -2$$

$$68. 16 - \left[\square - 2^2 \div \left\{5 \times (-2) - 3 \div \left(-\frac{1}{2}\right)\right\}\right] = 8$$

$$69. \left(-\frac{1}{3}\right)^3 \div \left(-\frac{1}{6}\right)^2 - \square \times \left\{(-2^2) \div \frac{4}{3} + (-3)^2 \times \left(\frac{5}{3}\right)^2\right\} = \frac{17}{3}$$



새로운 계산기호

■ 두 유리수 a, b 에 대하여 $a \star b = a + b + 2$ 일 때, 다음을 계산하여라.

$$70. 5 \star 3$$

$$71. 4 \star (-5)$$

$$72. 2 \star 2$$

$$73. 3 \star 7$$

$$74. (-2) \star (-7)$$

■ 두 유리수 a, b 에 대하여 $a \star b = b - a + 5$ 일 때, 다음을 계산하여라.

$$75. 2 \star 5$$

$$76. 4 \star 25$$

$$77. 8 \star 3$$

$$78. 11 \star 36$$

$$79. 13 \star 9$$

▣ 두 유리수 a, b 에 대하여 $a \ominus b = a \div b + 1$ 라 할 때, 다음을 계산하여라.

80. $5 \ominus \frac{5}{2}$

81. $\left(-\frac{1}{3}\right) \ominus \left(+\frac{3}{2}\right)$

82. $\frac{2}{3} \ominus (-5)$

▣ 두 유리수 a, b 에 대하여 $a \odot b = 3 \div (b - a)$ 라 할 때, 다음을 계산하여라.

83. $2 \odot 5$

84. $\frac{1}{2} \odot \left(-\frac{3}{4}\right)$

85. $\frac{2}{5} \odot 4$

86. $(-4) \odot \left(-\frac{9}{2}\right)$

87. $\left(-\frac{3}{5}\right) \odot \left(-\frac{3}{2}\right)$

▣ 두 유리수 a, b 에 대하여 $a \odot b = a \times b - 1$ 라 할 때, 다음을 계산하여라.

88. $3 \odot (-2)$

89. $4 \odot \frac{3}{2}$

90. $5 \odot \frac{7}{10}$

91. $(-2) \odot \left(-\frac{1}{2}\right)$

▣ 두 유리수 a, b 에 대하여 $a \blacklozenge b = a \div b + 2$ 라 할 때, 다음을 계산하여라.

92. $9 \blacklozenge (-3)$

93. $6 \blacklozenge \frac{3}{2}$

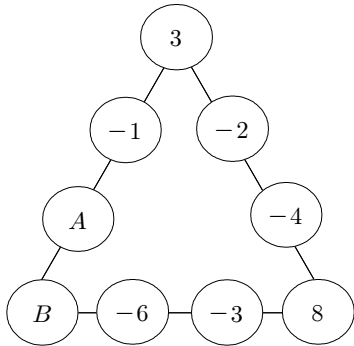
94. $5 \blacklozenge \frac{10}{3}$

95. $4 \blacklozenge \frac{2}{7}$

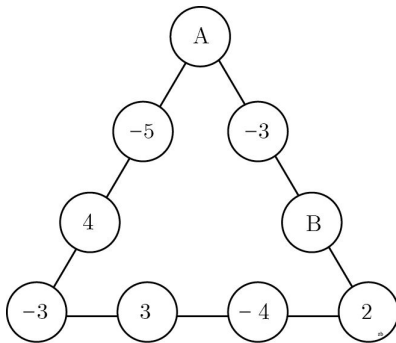
96. $(-10) \blacklozenge (-5)$

■ 다음 그림의 삼각형의 각 변에 놓인 모든 네 수의 합이 같을 때, $A+B$ 의 값을 구하여라.

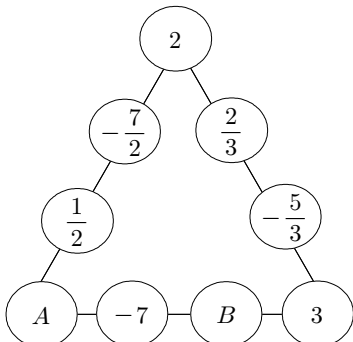
97.



98.



99.



■ 다음 표에서 가로, 세로 및 대각선의 수의 합이 모두 같도록 빈칸을 채워보아라.

100.

-1	4	
	0	2
3		1

101.

4		0
-3		
2		

102.

-1	1	3
		2

103.

		-1
		-11
-5		3

104.

	2		3
5		0	
	-3	1	-8
-6	-1		6



유리수의 부호 구하기

■ 주어진 조건에 따라 0이 아닌 두 유리수 a , b 의 부호를 나타내어라.

105. $a \times b > 0$, $a + b < 0$ 일 때

106. $a \times b > 0$, $a + b > 0$ 일 때

107. $a \div b > 0$, $a + b > 0$ 일 때

108. $a \div b < 0$, $a + b < 0$ 일 때

109. $a \times b < 0$, $a - b > 0$ 일 때

110. $a \times b < 0$, $a - b < 0$ 일 때

■ 주어진 조건에 따라 0이 아닌 유리수 a , b , c 의 부호를 나타내어라.

111. $a \times b > 0$, $b \times c < 0$, $b > c$ 일 때

112. $a \times b < 0$, $a > b$, $b \div c > 0$ 일 때

113. $a \times b \div c > 0$, $\frac{(-a)}{(-c)} < 0$, $a - c < 0$ 일 때

114. $a \div c < 0$, $a \times b \times c > 0$, $a > c$ 일 때

115. $a < c$, $a \times b < 0$, $b \div c > 0$ 일 때

116. $a \times b < 0$, $b \div c > 0$, $a - b < 0$ 일 때

117. $a \times b > 0$, $\frac{b}{c} < 0$, $c - b < 0$ 일 때

정답 및 해설



1) $\ominus \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

2) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

3) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

4) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

5) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

6) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

7) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

8) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

9) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�, 28$

\Rightarrow 계산순서: $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

$$4 \times \left[\left\{ \frac{3}{2} + (-3)^2 \div \frac{6}{5} \right\} - 2 \right] = 4 \times \left\{ \left(\frac{3}{2} + 9 \times \frac{5}{6} \right) - 2 \right\}$$

$$= 4 \times \left(\frac{3}{2} + \frac{15}{2} - 2 \right) = 4 \times 7 = 28$$

10) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�, 2$

\Rightarrow 계산순서: $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

$$[-1 - \{(3-4) \times 4 - 5\}] \div 4$$

$$= [-1 - \{(-1) \times 4 - 5\}] \div 4$$

$$= \{-1 - (-4-5)\} \div 4$$

$$= (-1+9) \div 4 = 8 \div 4 = 2$$

11) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�, -8$

\Rightarrow 계산순서: $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

$$(-2) \times [3 - \{4 + 2 \times (-3)\}] \div 2$$

$$= (-2) \times \{3 - (4-6)\} \div 2$$

$$= (-2) \times \{3 - (-2) \div 2\} = (-2) \times (3+1)$$

$$= (-2) \times 4 = -8$$

12) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�, 3$

\Rightarrow 계산순서: $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

$$8 - \left\{ (-2)^2 \times \frac{3}{16} + \frac{3}{4} \right\} \div \frac{3}{10} = 8 - \left(4 \times \frac{3}{16} + \frac{3}{4} \right) \div \frac{3}{10}$$

$$= 8 - \left(\frac{3}{4} + \frac{3}{4} \right) \div \frac{3}{10} = 8 - \frac{3}{2} \times \frac{10}{3} = 8 - 5 = 3$$

13) $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�, 13$

\Rightarrow 계산순서: $\omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin� \rightarrow \omin�$

$$3 - \left\{ (-3)^3 + 15 \div \frac{5}{3} \right\} \times \frac{5}{9} = 3 - \left\{ (-27) + 15 \times \frac{3}{5} \right\} \times \frac{5}{9}$$

$$= 3 - (-27+9) \times \frac{5}{9} = 3 - (-18) \times \frac{5}{9} = 3 + 10 = 13$$

14) 0

\Rightarrow (주어진 식) $= (-3) - (-3) = (-3) + (+3) = 0$

15) $\frac{9}{4}$

\Rightarrow (주어진 식) $= \frac{3}{4} - \left(-\frac{27}{8} \right) \times \frac{4}{9} = \frac{3}{4} - \left(-\frac{3}{2} \right) = \frac{3}{4} + \frac{3}{2} = \frac{9}{4}$

16) $+\frac{4}{3}$

$$\Rightarrow 5 \times (-1)^{202} \div \left(+\frac{15}{4} \right) = 5 \times (+1) \div \left(+\frac{15}{4} \right)$$

$$= + \left(5 \times 1 \times \frac{4}{15} \right) = +\frac{4}{3}$$

17) -18

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

$$= - \left(4 \times 3 \times \frac{3}{2} \right) = -18$$

18) $+\frac{4}{3}$

$$\Rightarrow \frac{2}{3} - \left(-\frac{5}{3} \right) \div \frac{5}{2} = \frac{2}{3} - \left(-\frac{5}{3} \right) \times \frac{2}{5}$$

$$= \frac{2}{3} - \left(-\frac{2}{3} \right) = +\frac{4}{3}$$

19) $+\frac{3}{4}$

$$\Rightarrow \frac{2}{3} + \left(-\frac{1}{3} \right)^2 \times \frac{3}{4} = \frac{2}{3} + \left(+\frac{1}{9} \right) \times \frac{3}{4}$$

$$= \frac{2}{3} + \left(+\frac{1}{12} \right) = \frac{8}{12} + \left(+\frac{1}{12} \right)$$

$$= +\frac{9}{12} = +\frac{3}{4}$$

20) +1

$$\Rightarrow (-3)^2 - 18 \div \left(-\frac{3}{2} \right)^2 = (+9) - 18 \div \left(+\frac{9}{4} \right)$$

$$= (+9) - 18 \times \left(+\frac{4}{9} \right)$$

$$= (+9) - (+8) = +1$$

21) 11

$\Rightarrow 10 - 20 \div 4 + 3 \times 2 = 10 - 5 + 6 = 11$

22) 36

$\Rightarrow 6 \times \{12 - (5+1)\} = 6 \times (12-6) = 6 \times 6 = 36$

23) 4

$\Rightarrow 24 \div \{(7-4) \times 2\} = 24 \div (3 \times 2) = 24 \div 6 = 4$

24) -2

$$\Rightarrow 2 - 2 \times \{6 \div (-4+7)\} = 2 - 2 \times (6 \div 3)$$

$$= 2 - 2 \times 2 = 2 - 4 = -2$$

25) 9

$$\Rightarrow 6 + \{4 \times (15 \div 5) - 7\} - 2 = 6 + (4 \times 3 - 7) - 2 \\ = 6 + (12 - 7) - 2 = 6 + 5 - 2 = 9$$

26) 15

$$\Rightarrow 4 \times 6 - 12 + 15 \div 5 = 24 - 12 + 3 = 15$$

27) 5

$$\Rightarrow 4^2 + 3 \times (-12) \div 6 - 5 = 16 - 36 \div 6 - 5 = 16 - 6 - 5 = 5$$

28) 18

$$\Rightarrow 18 \div (-3)^2 \times 6 + 15 - 9 = 18 \div 9 \times 6 + 15 - 9 \\ = 2 \times 6 + 15 - 9 = 12 + 15 - 9 = 18$$

29) +8

$$\Rightarrow 13 - 6 \times \left\{1 + \left(\frac{1}{2} - \frac{2}{3}\right)\right\} \\ = 13 - 6 \times \left\{1 + \left(\frac{3}{6} - \frac{4}{6}\right)\right\} = 13 - 6 \times \left(1 - \frac{1}{6}\right) \\ = 13 - 6 \times \left(+\frac{5}{6}\right) = 13 - (+5) = +8$$

30) $\frac{1}{2}$

$$\Rightarrow \frac{4}{5} \times \left\{\left(+\frac{3}{4}\right) - (-3)\right\} - \frac{5}{2} \\ = \frac{4}{5} \times \left\{\left(+\frac{3}{4}\right) + \left(+\frac{12}{4}\right)\right\} - \frac{5}{2} \\ = \frac{4}{5} \times \frac{15}{4} - \frac{5}{2} = 3 - \frac{5}{2} = \frac{6}{2} - \frac{5}{2} = \frac{1}{2}$$

31) 6

$$\Rightarrow -2 - \{1 - (14 - 5)\} \\ = -2 - (1 - 9) = -2 - (-8) \\ = -2 + 8 = 6$$

32) -9

$$\Rightarrow -11 - [-2 + \{5 - (2 + 3)\}] \\ = -11 - \{-2 + (5 - 5)\} \\ = -11 - (-2) \\ = -11 + 2 = -9$$

33) $\frac{3}{5}$

$$\Rightarrow -\frac{1}{5} + \left\{1 - \left(\frac{3}{5} - \frac{2}{5}\right)\right\} \\ = -\frac{1}{5} + \left(1 - \frac{1}{5}\right) \\ = -\frac{1}{5} + \frac{4}{5} = \frac{3}{5}$$

34) $-\frac{5}{6}$

$$\Rightarrow -\frac{2}{3} - \left\{-\frac{1}{6} + \left(-\frac{1}{3} + \frac{2}{3}\right)\right\} \\ = -\frac{2}{3} - \left(-\frac{1}{6} + \frac{1}{3}\right) = -\frac{2}{3} - \left(-\frac{1}{6} + \frac{2}{6}\right) \\ = -\frac{2}{3} - \frac{1}{6} = -\frac{4}{6} - \frac{1}{6} = -\frac{5}{6}$$

35) -6

$$\Rightarrow 36 \div 9 + \{2 + (-4) \times 3\} \\ = 36 \div 9 + \{2 + (-12)\} \\ = 36 \div 9 + (-10) \\ = 4 + (-10) = -6$$

36) -8

$$\Rightarrow 21 - \{4 + (-3)^2 \times 4 - 11\} \\ = 21 - \{4 + (+9) \times 4 - 11\} \\ = 21 - \{4 + (+36) - 11\} \\ = 21 - (+29) = -8$$

37) -12

$$\Rightarrow (\text{주어진 식}) = -2 + \{-3 + (-7)\} = -2 + (-10) = -12$$

38) -2

$$\Rightarrow (\text{주어진 식}) = \frac{1}{4} \times \{4 \times 3 + (-4)\} \times (-1) \\ = \frac{1}{4} \times 8 \times (-1) = -2$$

39) -1.4

$$\Rightarrow -1.5 + \{0.5 + (-0.7 + 0.3)\} \\ = -1.5 + (0.5 - 0.4) \\ = -1.5 + 0.1 = -1.4$$

40) -3.4

$$\Rightarrow -\{2.3 + (-0.3 + 0.5)\} - 0.9 \\ = -(2.3 + 0.2) - 0.9 \\ = -2.5 - 0.9 = -3.4$$

41) 17

$$\Rightarrow -4 + (+9) - 18 \times \left(-\frac{2}{3}\right) \\ = (+5) + 12 \\ = 17$$

42) -2

$$\Rightarrow -\frac{5}{2} - [-2 + \{2.5 - (1.5 - 0.5)\}] \\ = -\frac{5}{2} - \{-2 + (2.5 - 1)\} \\ = -\frac{5}{2} - (-0.5) \\ = -\frac{25}{10} + \frac{5}{10} = -\frac{20}{10} = -2$$

43) $\frac{39}{2}$

$$\Rightarrow \text{주어진 식은} \\ \left\{(+5) \times \frac{3}{10}\right\} - 9 \times (-2) \\ = \left(+\frac{3}{2}\right) - (-18) \\ = \frac{3}{2} + \frac{36}{2}$$

$$= \frac{39}{2}$$

$$44) \frac{13}{2}$$

⇒ 주어진 식은

$$5 - \{(-8) - (-2)\} \times \frac{1}{4}$$

$$= 5 - (-6) \times \frac{1}{4}$$

$$= 5 - \left(-\frac{3}{2}\right)$$

$$= \frac{10+3}{2}$$

$$= \frac{13}{2}$$

$$45) -\frac{9}{2}$$

⇒ 주어진 식은

$$\left(+\frac{3}{4}\right) \times \left\{\left(-\frac{3}{4}\right) \times 12 + 3\right\}$$

$$= \left(+\frac{3}{4}\right) \times \{(-9) + 3\}$$

$$= \left(+\frac{3}{4}\right) \times (-6)$$

$$= -\frac{9}{2}$$

$$46) 1$$

⇒ 주어진 식은

$$\frac{5}{3} + \left(-\frac{2}{3}\right) \times \left\{\left(\frac{3}{4} - \frac{2}{4}\right) \times (+4)\right\}$$

$$= \frac{5}{3} + \left(-\frac{2}{3}\right) \times \left\{\left(+\frac{1}{4}\right) \times (+4)\right\}$$

$$= \frac{5}{3} + \left(-\frac{2}{3}\right) \times (+1)$$

$$= \frac{5}{3} + \left(-\frac{2}{3}\right)$$

$$= 1$$

$$47) 0$$

$$\Rightarrow 24 \times \left\{\frac{3}{4} + (-2)^2 \times \frac{1}{16} - \frac{1}{2}\right\} - 12$$

$$= 24 \times \left\{\frac{3}{4} + 4 \times \frac{1}{16} - \frac{1}{2}\right\} - 12$$

$$= 24 \times \left\{\frac{3}{4} + \frac{1}{4} - \frac{1}{2}\right\} - 12$$

$$= 24 \times \frac{1}{2} - 12 = 0$$

$$48) +\frac{17}{7}$$

$$\begin{aligned} \Rightarrow & \frac{4}{11} \times \left(-\frac{33}{28}\right) + (-2)^3 \div \left(-\frac{14}{5}\right) \\ &= \left(-\frac{3}{7}\right) + (-8) \div \left(-\frac{14}{5}\right) \\ &= \left(-\frac{3}{7}\right) + (-8) \times \left(-\frac{5}{14}\right) \\ &= \left(-\frac{3}{7}\right) + \left(+\frac{20}{7}\right) = +\frac{17}{7} \end{aligned}$$

$$49) \frac{1}{3}$$

$$\Rightarrow 5 - \left[\frac{2}{3} + (-1) \times \left\{9 \times \left(-\frac{4}{3}\right) + 8\right\}\right]$$

$$= 5 - \left[\frac{2}{3} + (-1) \times \{(-12) + 8\}\right]$$

$$= 5 - \left\{\frac{2}{3} + (-1) \times (-4)\right\}$$

$$= 5 - \left(\frac{2}{3} + 4\right)$$

$$= 1 - \frac{2}{3}$$

$$= \frac{1}{3}$$

$$50) -\frac{97}{6}$$

$$\Rightarrow -16 - (-2) \div \left\{(-32) \times \left(+\frac{1}{2}\right) \times \frac{3}{4}\right\}$$

$$= -16 - (-2) \div \left\{(-16) \times \frac{3}{4}\right\}$$

$$= -16 - (-2) \div (-12)$$

$$= -16 - \left(+\frac{1}{6}\right)$$

$$= -\frac{97}{6}$$

$$51) 168$$

$$\Rightarrow -16 \times \left\{-\frac{1}{2} + \frac{5}{3} \times (-2-4)\right\}$$

$$= -16 \times \left\{-\frac{1}{2} + \frac{5}{3} \times (-6)\right\}$$

$$= -16 \times \left\{-\frac{1}{2} + (-10)\right\}$$

$$= -16 \times \left(-\frac{21}{2}\right)$$

$$= 168$$

$$52) -\frac{23}{3}$$

$$\Rightarrow 5 - \left(-\frac{4}{3}\right) - \left[\left\{(+9) + \left(-\frac{11}{2}\right) \times 5\right\}\right] \times \frac{4}{5}$$

$$= 5 + \frac{4}{3} - \left[\left\{+\frac{7}{2}\right\} \times 5\right] \times \frac{4}{5}$$

$$= \frac{19}{3} - \left(+\frac{35}{2}\right) \times \frac{4}{5}$$

$$= \frac{19}{3} - 14$$

$$= -\frac{23}{3}$$

53) -12

$$\Rightarrow \left(-\frac{1}{3}\right)^2 \times 27 - \left\{8 \div \left(\frac{2}{5} + \frac{2}{15}\right)\right\}$$

$$= \left(-\frac{1}{3}\right)^2 \times 27 - \left\{8 \div \left(\frac{6}{15} + \frac{2}{15}\right)\right\}$$

$$= \left(-\frac{1}{3}\right)^2 \times 27 - \left(8 \div \frac{8}{15}\right)$$

$$= \left(-\frac{1}{3}\right)^2 \times 27 - \left(8 \times \frac{15}{8}\right)$$

$$= \frac{1}{9} \times 27 - 15 = 3 - 15 = -12$$

54) $\frac{19}{6}$

$$\Rightarrow \frac{2}{3} - \left\{-8 - \frac{1}{7} \div \left(-\frac{2}{7}\right)\right\} \times \frac{1}{3} = \frac{2}{3} - \left(-8 + \frac{1}{2}\right) \times \frac{1}{3}$$

$$= \frac{2}{3} - \left(-\frac{15}{2}\right) \times \frac{1}{3} = \frac{2}{3} + \frac{5}{2} = \frac{4}{6} + \frac{15}{6} = \frac{19}{6}$$

55) 2

$$\Rightarrow (-1)^3 - \left\{-2 + \frac{3}{4} \times \left(1 - \frac{1}{3}\right)\right\} \div \frac{1}{2}$$

$$= -1 - \left\{-2 + \frac{3}{4} \times \frac{2}{3}\right\} \div \frac{1}{2} = -1 - \left(-2 + \frac{1}{2}\right) \div \frac{1}{2}$$

$$= -1 - \left(-\frac{3}{2}\right) \div \frac{1}{2} = -1 + 3 = 2$$

56) $\frac{7}{3}$

$$\Rightarrow 3 - \left[\frac{1}{2} + (-1) \div \{(-2) + 8\}\right] \times 2$$

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

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

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

$$= 3 - \left(+\frac{1}{3}\right) \times 2$$

$$= 3 - \left(+\frac{2}{3}\right)$$

$$= \frac{7}{3}$$

57) $-\frac{35}{3}$

$$\Rightarrow -9 - \left[\frac{2}{3} + (-1) \times \left\{4 \times \left(-\frac{5}{2}\right) + 8\right\}\right]$$

$$= -9 - \left[\frac{2}{3} + (-1) \times \{(-10) + 8\}\right]$$

$$= -9 - \left\{\frac{2}{3} + (-1) \times (-2)\right\}$$

$$= -9 - \left(\frac{2}{3} + 2\right)$$

$$= -9 - \frac{2}{3} - 2$$

$$= -11 - \frac{2}{3}$$

$$= -\frac{35}{3}$$

58) -3

 \Rightarrow 주어진 식은

$$-\frac{9}{8} - \left[\left(+\frac{1}{4}\right) - \left\{(-3) - \frac{5}{9} \times \left(-\frac{3}{2}\right)\right\} \times \frac{3}{4}\right]$$

$$= -\frac{9}{8} - \left[\left(+\frac{1}{4}\right) - \left\{(-3) - \left(-\frac{5}{6}\right)\right\} \times \frac{3}{4}\right]$$

$$= -\frac{9}{8} - \left[\left(+\frac{1}{4}\right) - \left(-\frac{13}{6}\right) \times \frac{3}{4}\right]$$

$$= -\frac{9}{8} - \left[\left(+\frac{1}{4}\right) - \left(-\frac{13}{8}\right)\right]$$

$$= -\frac{9}{8} - \left(+\frac{15}{8}\right)$$

$$= -3$$

59) 8

$$\Rightarrow 6 + 3 \times \left[\{(-2)^4 - 10\} \div \frac{4}{3} + \frac{7}{2}\right] \div 12$$

$$= 6 + 3 \times \left\{(16 - 10) \div \frac{4}{3} + \frac{7}{2}\right\} \div 12$$

$$= 6 + 3 \times \left(6 \times \frac{3}{4} + \frac{7}{2}\right) \div 12$$

$$= 6 + 3 \times 8 \times \frac{1}{12} = 6 + 2 = 8$$

60) -3

$$\Rightarrow 9 - \left[(-4)^2 \div 2 \times \left\{\frac{2}{5} + (-5)^2 \div \frac{125}{8}\right\} - 4\right]$$

$$= 9 - \left\{16 \div 2 \times \left(\frac{2}{5} + 25 \times \frac{8}{125}\right) - 4\right\}$$

$$= 9 - \left\{16 \div 2 \times \left(\frac{2}{5} + \frac{8}{5}\right) - 4\right\}$$

$$= 9 - \left(16 \times \frac{1}{2} \times 2 - 4\right) = 9 - 12 = -3$$

61) 0

 \Rightarrow 주어진 식은

$$\left[\left\{(-4) \times \left(\frac{9}{12} - \frac{4}{12}\right)\right\} \times \frac{1}{2} + \left(-\frac{2}{3}\right)\right] - \left(-\frac{3}{2}\right)$$

$$= \left\{(-2) \times \left(+\frac{5}{12}\right) + \left(-\frac{2}{3}\right)\right\} + \frac{3}{2}$$

$$= \left(-\frac{5}{6} - \frac{4}{6}\right) + \frac{3}{2}$$

$$= \left(-\frac{3}{2}\right) + \frac{3}{2}$$

$$= 0$$

$$62) -\frac{9}{4}$$

$$\Rightarrow \left(-\frac{27}{8}\right) \times \frac{1}{\square} \times \frac{7}{12} = \frac{7}{8}$$

$$\frac{1}{\square} = \frac{7}{8} \div \left(-\frac{27}{8}\right) \div \left(\frac{7}{12}\right)$$

$$\frac{1}{\square} = \frac{7}{8} \times \left(-\frac{8}{27}\right) \times \left(\frac{12}{7}\right) = -\frac{4}{9}$$

$$\therefore \square = -\frac{9}{4}$$

$$63) -\frac{70}{3}$$

$$\Rightarrow 5 \times \left(-\frac{7}{2}\right) \times \frac{1}{\square} = \frac{3}{4}$$

$$-\frac{35}{2} \times \frac{1}{\square} = \frac{3}{4}$$

$$\frac{1}{\square} = \frac{3}{4} \div \left(-\frac{35}{2}\right) = \frac{3}{4} \times \left(-\frac{2}{35}\right) = -\frac{3}{70}$$

$$\therefore \square = -\frac{70}{3}$$

$$64) 8$$

$$\Rightarrow -12 \times \frac{1}{\square} \times (+4) = -6 \text{ 에서}$$

$$\frac{1}{\square} \times (-48) = -6$$

$$\frac{1}{\square} = (-6) \div (-48) = \frac{1}{8} \text{ 이므로 } \square = 8$$

$$65) -\frac{5}{2}$$

$$\Rightarrow \frac{3}{7} \times \frac{1}{\square} \times \left(+\frac{25}{4}\right) = -\frac{15}{14}$$

$$\frac{1}{\square} \times \frac{75}{28} = -\frac{15}{14}$$

$$\frac{1}{\square} = \left(-\frac{15}{14}\right) \times \frac{28}{75} = -\frac{2}{5} \text{ 에서 } \square = -\frac{5}{2}$$

$$66) \frac{2}{3}$$

$$\Rightarrow \left(\frac{5}{3} - \frac{1}{6}\right)^2 = \left(\frac{10}{6} - \frac{1}{6}\right)^2 = \left(\frac{3}{2}\right)^2 = \frac{9}{4} \text{ 이다.}$$

$$\text{따라서 } \frac{9}{4} \div \square + 2 = \frac{43}{8}$$

$$\frac{9}{4} \div \square = \frac{43}{8} - 2$$

$$\frac{9}{4} \div \square = \frac{27}{8}$$

$$\frac{9}{4} \div \frac{27}{8} = \square$$

$$\square = \frac{9}{4} \times \frac{8}{27} = \frac{2}{3}$$

$$67) -6$$

$$\Rightarrow \left(-\frac{1}{4}\right) \div \left(-\frac{1}{8}\right) - \square \times \left(-\frac{2}{3}\right) = -2$$

$$\left(-\frac{1}{4}\right) \times (-8) - \square \times \left(-\frac{2}{3}\right) = -2$$

$$2 - \square \times \left(-\frac{2}{3}\right) = -2$$

$$4 = \square \times \left(-\frac{2}{3}\right)$$

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

$$68) 7$$

\Rightarrow 주어진 식은

$$16 - [\square - 4 \div \{(-10) - 3 \times (-2)\}] = 8$$

$$16 - [\square - 4 \div \{(-10) - (-6)\}] = 8$$

$$16 - \{\square - 4 \div (-4)\} = 8$$

$$16 - (\square + 1) = 8$$

$$\square + 1 = 8$$

$$\square = 7$$

$$69) -\frac{7}{22}$$

$$\Rightarrow \left(-\frac{1}{27}\right) \times (+36) - \square \times \left\{(-4) \times \frac{3}{4} + (+9) \times \left(\frac{25}{9}\right)\right\} = \frac{17}{3}$$

$$\left(-\frac{4}{3}\right) - \square \times \{(-3) + (+25)\} = \frac{17}{3}$$

$$\left(-\frac{4}{3}\right) - \square \times (+22) = \frac{17}{3}$$

$$\left(-\frac{4}{3}\right) - \frac{17}{3} = \square \times 22$$

$$-7 = \square \times 22$$

$$\square = -\frac{7}{22}$$

$$70) 10$$

$$\Rightarrow 5 \star 3 = 5 + 3 + 2 = 10$$

$$71) 1$$

$$\Rightarrow 4 \star (-5) = 4 + (-5) + 2 = 1$$

$$72) 6$$

$$\Rightarrow 2 \star 2 = 2 + 2 + 2 = 6$$

$$73) 12$$

$$\Rightarrow 3 \star 7 = 3 + 7 + 2 = 12$$

$$74) -7$$

$$\Rightarrow (-2) \star (-7) = (-2) + (-7) + 2 = -7$$

$$75) 8$$

$$\Rightarrow 2 \star 5 = 5 - 2 + 5 = 3 + 5 = 8$$

76) 26

$$\Rightarrow 4 \star 25 = 25 - 4 + 5 = 26$$

77) 0

$$\Rightarrow 8 \star 3 = 3 - 8 + 5 = (-5) + 5 = 0$$

78) 30

$$\Rightarrow 11 \star 36 = 36 - 11 + 5 = 30$$

79) 1

$$\Rightarrow 13 \star 9 = 9 - 13 + 5 = (-4) + 5 = 1$$

80) 3

$$\Rightarrow 5 \ominus \frac{5}{2} = 5 \div \frac{5}{2} + 1 = 5 \times \frac{2}{5} + 1 = 2 + 1 = 3$$

81) $\frac{7}{9}$

$$\begin{aligned} \Rightarrow \left(-\frac{1}{3}\right) \ominus \left(+\frac{3}{2}\right) &= \left(-\frac{1}{3}\right) \div \left(+\frac{3}{2}\right) + 1 \\ &= \left(-\frac{1}{3}\right) \times \left(+\frac{2}{3}\right) + 1 \\ &= -\frac{2}{9} + 1 = \frac{7}{9} \end{aligned}$$

82) $\frac{13}{15}$

$$\begin{aligned} \Rightarrow \frac{2}{3} \ominus (-5) &= \frac{2}{3} \div (-5) + 1 \\ &= \frac{2}{3} \times \left(-\frac{1}{5}\right) + 1 \\ &= \left(-\frac{2}{15}\right) + 1 = \frac{13}{15} \end{aligned}$$

83) 2

$$\Rightarrow 2 \ominus 5 = 3 \div (5 - 2) = 3 \div 3 = 1$$

84) $-\frac{12}{5}$

$$\begin{aligned} \Rightarrow \frac{1}{2} \ominus \left(-\frac{3}{4}\right) &= 3 \div \left(-\frac{3}{4} - \frac{1}{2}\right) \\ &= 3 \div \left(-\frac{3}{4} - \frac{2}{4}\right) = 3 \div \left(-\frac{5}{4}\right) \\ &= 3 \times \left(-\frac{4}{5}\right) = -\frac{12}{5} \end{aligned}$$

85) $\frac{5}{6}$

$$\Rightarrow \frac{2}{5} \ominus 4 = 3 \div \left(4 - \frac{2}{5}\right) = 3 \div \left(\frac{18}{5}\right) = 3 \times \frac{5}{18} = \frac{5}{6}$$

86) -6

$$\begin{aligned} \Rightarrow (-4) \ominus \left(-\frac{9}{2}\right) &= 3 \div \left\{\left(-\frac{9}{2}\right) - (-4)\right\} \\ &= 3 \div \left(-\frac{9}{2} + \frac{8}{2}\right) = 3 \div \left(-\frac{1}{2}\right) \\ &= 3 \times (-2) = -6 \end{aligned}$$

87) $-\frac{10}{3}$

$$\begin{aligned} \Rightarrow \left(-\frac{3}{5}\right) \ominus \left(-\frac{3}{2}\right) &= 3 \div \left\{\left(-\frac{3}{2}\right) - \left(-\frac{3}{5}\right)\right\} \\ &= 3 \div \left(-\frac{3}{2} + \frac{3}{5}\right) = 3 \div \left(-\frac{15}{10} + \frac{6}{10}\right) \\ &= 3 \div \left(-\frac{9}{10}\right) = 3 \times \left(-\frac{10}{9}\right) = -\frac{10}{3} \end{aligned}$$

88) -7

$$\Rightarrow 3 \ominus (-2) = -6 - 1 = -7$$

89) 5

$$\Rightarrow 4 \ominus \frac{3}{2} = 4 \times \frac{3}{2} - 1 = 6 - 1 = 5$$

90) $\frac{5}{2}$

$$\Rightarrow 5 \ominus \frac{7}{10} = 5 \times \frac{7}{10} - 1 = \frac{7}{2} - 1 = \frac{5}{2}$$

91) 0

$$\Rightarrow (-2) \ominus \left(-\frac{1}{2}\right) = (-2) \times \left(-\frac{1}{2}\right) - 1 = 1 - 1 = 0$$

92) -1

$$\Rightarrow 9 \blacklozenge (-3) = 9 \div (-3) + 2 = (-3) + 2 = -1$$

93) 6

$$\Rightarrow 6 \blacklozenge \frac{3}{2} = 6 \div \left(\frac{3}{2}\right) + 2 = 6 \times \frac{2}{3} + 2 = 4 + 2 = 6$$

94) $\frac{7}{2}$

$$\Rightarrow 5 \blacklozenge \frac{10}{3} = 5 \div \left(\frac{10}{3}\right) + 2 = 5 \times \frac{3}{10} + 2 = \frac{3}{2} + 2 = \frac{7}{2}$$

95) 16

$$\Rightarrow 4 \blacklozenge \frac{2}{7} = 4 \div \left(\frac{2}{7}\right) + 2 = 4 \times \frac{7}{2} + 2 = 14 + 2 = 16$$

96) 4

97) 3

\Rightarrow 각 변에 놓인 수의 합은

$$3 + (-2) + (-4) + 8 = 5$$

따라서 $A = -3$, $B = 6$ 이므로 $A + B = 3$

98) -1

\Rightarrow 각 변에 놓인 수의 합은

$$(-3) + 3 + (-4) + 2 = -2$$

따라서 $A=2$, $B=-3$ 이므로 $A+B=-1$

99) 8

⇒ 각 번에 놓인 수의 합은

$$2 + \frac{2}{3} + \left(-\frac{5}{3}\right) + 3 = 4$$

$$A + (-7) + B + 3 = 4 \quad \therefore A + B = 8$$

100)

-1	4	-3
-2	0	2
3	-4	1

101)

4	-1	0
-3	1	5
2	3	-2

102)

0	5	-2
-1	1	3
4	-3	2

103)

-9	1	-1
5	-3	-11
-5	-7	3

104)

-9	2	-2	3
5	-4	0	-7
4	-3	1	-8
-6	-1	-5	6

105) $a < 0$, $b < 0$

106) $a > 0$, $b > 0$

107) $a > 0$, $b > 0$

108) $a < 0$, $b < 0$

109) $a > 0$, $b < 0$

110) $a < 0$, $b > 0$

111) $a > 0$, $b > 0$, $c < 0$

⇒ $a \times b > 0$ 이므로 a , b 의 부호는 같고

$b \times c < 0$ 이므로 b , c 의 부호는 다르다.

이때 $b > c$ 이므로 $b > 0$, $c < 0$ 이고 $a > 0$ 이다.

112) $a > 0$, $b < 0$, $c < 0$

⇒ $a \times b < 0$ 에서 a , b 의 부호가 다르고

$a > b$ 이므로 $a > 0$, $b < 0$ 이다.

또한 $b \div c > 0$ 에서 b , c 의 부호가 같으므로 $c < 0$

113) $a < 0$, $b < 0$, $c > 0$

⇒ $\frac{-a}{-c} < 0$ 이므로 $\frac{a}{c} < 0$ 이고 $a - c < 0$ 에서

$a < c$ 이므로 $a < 0$, $c > 0$ 이다.

이때 $a \times b \div c > 0$ 에서 $\frac{ab}{c} > 0$ 이므로 $b < 0$ 이다.

114) $a > 0$, $b < 0$, $c < 0$

⇒ $a \div c < 0$, $a > c$ 이므로 $a > 0$, $c < 0$

이때 $a \times b \times c > 0$ 이므로 $b < 0$

115) $a < 0$, $b > 0$, $c > 0$

116) $a < 0$, $b > 0$, $c > 0$

⇒ $a \times b < 0$ 이므로 a , b 의 부호는 다르고

$a - b < 0$ 에서 $a < b$ 이므로 $a < 0$, $b > 0$

$b \div c > 0$ 이므로 b , c 의 부호는 같기 때문에 $c > 0$

117) $a > 0$, $b > 0$, $c < 0$

⇒ $\frac{b}{c} < 0$ 이므로 b , c 의 부호는 다르고

$c - b < 0$ 에서 $c < b$ 이므로 $b > 0$, $c < 0$ 이다.

또한 $a \times b > 0$ 이므로 $a > 0$ 이다.