계산시 참고사항

1. 덧셈의 연산법칙

세 수 a, b, c에 대하여

(1) 덧셈의 교환법칙: $a+b=b+a$

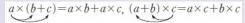(2) 덧셈의 결합법칙: $(a+b)+c=a+(b+c)$

2. 곱셈의 연산법칙

세 수 a, b, c에 대하여

(1) 곱셈의 교환법칙: $a \times b = b \times a$

(2) 곱셈의 결합법칙: $(a \times b) \times c = a \times (b \times c)$

3. 분배법칙

세 수 a, b, c에 대하여

$$a \times (b+c) = a \times b + a \times c, \quad (a+b) \times c = a \times c + b \times c$$

💬 참고

◉ 뺄셈에서는 교환법칙과 결합법칙이 성립하지 않는다.

◉ 나눗셈에서는 교환법칙과 결합법칙이 성립하지 않는다.

덧셈의 연산법칙

☑ **각 ㉠, ㉡을 계산하여라.**

1. ㉠ $(+7)+(-3)$, ㉡ $(-3)+(+7)$

2. ㉠ $(-5)+(-6)$, ㉡ $(-6)+(-5)$

3. ㉠ $\{(+9)+(-4)\}+(-3) = (\boxed{})+(-3) = \boxed{}$

   ㉡ $(+9)+\{(-4)+(-3)\} = (+9)+(\boxed{}) = \boxed{}$

4. ㉠ $\left\{(+3)+\left(-\dfrac{1}{2}\right)\right\}+\left(+\dfrac{3}{2}\right) = \left(\boxed{}\right)+\left(+\dfrac{3}{2}\right) = \boxed{}$

   ㉡ $(+3)+\left\{\left(-\dfrac{1}{2}\right)+\left(+\dfrac{3}{2}\right)\right\} = (+3)+\left(\boxed{}\right) = \boxed{}$

5. 다음 계산 과정에서 (가),(나)에 이용된 덧셈의 계산법칙을 구하여라.

$(-7)+(+2014)+(-10)+(-2014)$
$= (-7)+(+2014)+(-2014)+(-10)$ ⟩ (가)
$= (-7)+\{(+2014)+(-2014)\}+(-10)$ ⟩ (나)
$= (-7)+(-10)$
$= (-17)$

6. 다음 계산 과정에서 (가),(나)에 이용된 덧셈의 계산법칙을 구하여라.

$(+2.1)+(-4.6)+(+5.9)+(-1.4)$
$= (+2.1)+(+5.9)+(-4.6)+(-1.4)$ ⟩ (가)
$= \{(+2.1)+(+5.9)\}+\{(-4.6)+(-1.4)\}$ ⟩ (나)
$= (+8)+(-6) = +2$

☑ **다음을 덧셈의 교환법칙과 결합법칙을 이용하여 계산하여라.**

7. $(+4)+(-9)-(-3)$

8. $(-3)+(+8)+(-7)$

9. $(+5)+(-9)+(+4)$

10. $(+4)+(-2)-(+6)$

11. $(+3)-(+9)+(+5)$

12. $(-7)+(+5)-(-2)$

13. $(+1)-(-3)+(+2)$

14. $(-2)+(-6)-(+4)$

15. $(-3)-(+7)+(-6)$

16. $(-9)-(-3)+(+4)$

17. $\left(+\dfrac{3}{4}\right)-\left(-\dfrac{9}{4}\right)+\left(-\dfrac{5}{4}\right)$

18. $\left(-\dfrac{2}{5}\right)+\left(+\dfrac{2}{3}\right)+\left(-\dfrac{3}{5}\right)$

19. $\left(+\dfrac{1}{8}\right)+\left(-\dfrac{1}{2}\right)-\left(-\dfrac{5}{3}\right)$

20. $\left(-\dfrac{7}{10}\right)-\left(+\dfrac{3}{5}\right)-(-1.3)$

21. $(-2.2)+\left(+\dfrac{7}{3}\right)-\left(-\dfrac{4}{5}\right)$

22. $(+4)+\left(-\dfrac{4}{3}\right)+(-3)$

23. $(+0.3)-\left(+\dfrac{1}{10}\right)+(+3)$

24. $\left(-\dfrac{1}{3}\right)+(+6)+\left(-\dfrac{8}{3}\right)$

25. $(+6)+(-3)-(-7)-(+5)$

26. $(-2)-(-6)+(+9)-(+1)$

27. $\left(+\dfrac{5}{8}\right)-\left(+\dfrac{5}{4}\right)+\left(-\dfrac{7}{4}\right)-\left(-\dfrac{3}{8}\right)$

28. $\left(+\dfrac{4}{5}\right)+\left(-\dfrac{1}{7}\right)+\left(+\dfrac{1}{5}\right)-\left(-\dfrac{8}{7}\right)$

29. $(-1.4)-\left(+\dfrac{2}{9}\right)+(-2.6)-\left(+\dfrac{16}{9}\right)$

30. $\left(+\dfrac{3}{10}\right)+(-0.8)-\left(-\dfrac{9}{10}\right)-(+1.5)$

곱셈의 연산법칙

31. 다음 계산 과정에서 (가),(나)에 이용된 곱셈의 계산법칙을 구하여라.

$$(-15)\times(-3)\times\left(-\frac{1}{5}\right)$$
$$=(-15)\times\left(-\frac{1}{5}\right)\times(-3) \quad \text{(가)}$$
$$=\left\{(-15)\times\left(-\frac{1}{5}\right)\right\}\times(-3) \quad \text{(나)}$$
$$=(+3)\times(-3)$$
$$=-9$$

32. 다음 계산 과정에서 (가),(나)에 이용된 곱셈의 계산법칙을 구하여라.

$$(+4)\times(-5)\times\left(+\frac{3}{2}\right)$$
$$=(-5)\times(+4)\times\left(+\frac{3}{2}\right) \quad \text{(가)}$$
$$=(-5)\times\left\{(+4)\times\left(+\frac{3}{2}\right)\right\} \quad \text{(나)}$$
$$=(-5)\times(+6)$$
$$=-(5\times6)$$
$$=-30$$

◩ 다음을 곱셈의 교환법칙과 결합법칙을 이용하여 계산하여라.

33. $(-2)\times(+16)\times(-5)$

34. $(+5)\times(-9)\times(-6)$

35. $(-5)\times(+11)\times(+6)$

36. $\left(-\frac{3}{8}\right)\times(-7)\times\left(-\frac{8}{9}\right)$

37. $(+5)\times(-0.9)\times(+0.4)$

38. $(-0.9)\times\left(-\frac{1}{18}\right)\times(+10)$

39. $(+0.02)\times\left(+\frac{8}{3}\right)\times(+100)$

40. $\left(+\frac{3}{4}\right)\times\left(-\frac{5}{7}\right)\times\left(-\frac{20}{9}\right)$

41. $\left(+\frac{2}{13}\right)\times\left(-\frac{3}{25}\right)\times(+26)$

42. $\left(-\frac{3}{7}\right)\times(-0.5)\times\left(-\frac{14}{3}\right)$

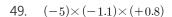**43.** $\left(+\frac{7}{3}\right)\times(-0.7)\times\left(-\frac{9}{7}\right)$

44. $(-0.5)\times(+5)\times(-4)$

45. $\left(+\frac{1}{2}\right)\times\left(-\frac{4}{5}\right)\times(-24)$

46. $\left(+\frac{5}{7}\right)\times(-2)\times\left(+\frac{14}{15}\right)$

47. $\left(+\frac{3}{8}\right)\times\left(-\frac{1}{7}\right)\times\left(-\frac{16}{9}\right)$

48. $(+9)\times\left(-\frac{3}{14}\right)\times\left(+\frac{7}{9}\right)$

49. $(-5) \times (-1.1) \times (+0.8)$

50. $\left(-\dfrac{8}{21}\right) \times (-11) \times \left(+\dfrac{21}{16}\right)$

51. $(-4) \times (+9) \times (-25)$

52. $(-10) \times (+8) \times (+0.9)$

53. $(-3) \times (+14) \times \left(-\dfrac{1}{3}\right)$

54. $\left(+\dfrac{5}{8}\right) \times (-3) \times (-16)$

55. $\left(-\dfrac{7}{4}\right) \times \left(+\dfrac{2}{3}\right) \times \left(-\dfrac{4}{7}\right)$

56. $\left(+\dfrac{2}{5}\right) \times \left(-\dfrac{1}{3}\right) \times \left(-\dfrac{5}{4}\right) \times (+9)$

57. $(+4) \times \left(+\dfrac{5}{6}\right) \times (-5) \times \left(-\dfrac{9}{10}\right)$

58. $\left(-\dfrac{8}{11}\right) \times (+1.5) \times \left(+\dfrac{22}{3}\right) \times (+4)$

59. $\left(-\dfrac{12}{5}\right) \times \left(-\dfrac{14}{9}\right) \times (-3.6) \times \left(-\dfrac{25}{7}\right)$

분배법칙

☑ 다음 연산법칙에 대한 설명으로 옳은 것에는 〇표, 옳지 않은 것에는 ×표를 하여라.

60. $a \div b \times c = a \div (b \times c)$ (   )

61. $a \div b \div c = a \div (b \div c)$ (   )

62. $(a+b) \div c = a \div c + b \div c$ (   )

63. $a \times (b+c) = a \times b + a \times c$ (   )

64. $a \div (b+c) = a \div b + a \div c$ (   )

☑ 다음 식을 분배법칙을 이용하여 계산하여라.

65. $5 \times (100-7)$

66. $(4+0.5) \times 6$

67. $34 \times (20-2)$

68. $25 \times (100+1)$

69. $(-4) \times \left(\dfrac{3}{2} - \dfrac{1}{4}\right)$

70. $\dfrac{5}{4} \times \left(\dfrac{8}{15} + \dfrac{12}{25}\right)$

71. $-12 \times \left(\dfrac{1}{6} - \dfrac{1}{18} \right)$

72. $\left(\dfrac{1}{3} - \dfrac{8}{15} \right) \times 9$

73. $\left(-\dfrac{2}{5} \right) \times 2 + \left(-\dfrac{1}{5} \right) \times 2$

74. $(50 + 6) \times 2$

75. $6 \times \left(\dfrac{2}{3} - \dfrac{7}{2} \right)$

76. $\left(\dfrac{5}{4} - \dfrac{10}{3} \right) \times (-12)$

77. $\dfrac{2}{13} \times \left(52 + \dfrac{39}{2} \right)$

78. $(-5) \times (2 - 0.4)$

79. $\left(+\dfrac{3}{10} \right) \times (-4) + \left(-\dfrac{8}{15} \right) \times (-4)$

80. $\dfrac{1}{4} \times \left(-\dfrac{1}{5} \right) - \dfrac{1}{4} \times 1$

81. $15 \times 65 + 15 \times 35$

82. $28 \times (-18) + 28 \times (+8)$

83. $16 \times (+26) + 16 \times (-16)$

84. $(+29) \times 9 + (-34) \times 9$

85. $(-12) \times 24 + (+2) \times 24$

86. $3 \times 27 + 3 \times 33$

87. $122 \times 24 - 22 \times 24$

88. $\dfrac{7}{12} \times 37 - \dfrac{7}{12} \times 13$

89. $14 \times \dfrac{4}{3} + 7 \times \dfrac{4}{3}$

90. $1.75 \times 84 + 1.75 \times 16$

91. $73 \times 1.2 - 23 \times 1.2$

92. $67 \times 97 + 67 \times 3$

93. $49 \times 2.6 + 51 \times 2.6$

94. $0.7 \times 27 - 0.7 \times 17$

95. $\dfrac{1}{18} \times 6 + \dfrac{1}{18} \times 12$

96. $\dfrac{3}{7} \times 4 - \dfrac{3}{7} \times 18$

97. $2 \times \dfrac{4}{5} + 8 \times \dfrac{4}{5}$

98. $64 \times 14 + 36 \times 14$

99. $135 \times 99 - 135 \times 98$

100. $9999 \times 2222 + 3333 \times 3334$

101. $2.5 \times (-12580) + 2.5 \times 12590$

102. $3.14 \times 118 - 3.14 \times 18$

103. $0.123 \times 1203 + 0.123 \times (-203)$

104. $5.23 \times (-1.6) + 5.23 \times 2.1 - 1.23 \times 0.5$

105. $9.23 \times 3.3 + 9.23 \times (-2.8) - 0.5 \times 1.23$

106. $(2 \times 3.64 + 98 \times 3.64) - (5.7 \times 7 + 5.3 \times 7)$

정답 및 해설

1) ㉠ $+4$ ㉡ $+4$

2) ㉠ -11 ㉡ -11

3) ㉠ $+5,+2$ ㉡ $-7,+2$
⇨ ㉠ $\{(+9)+(-4)\}+(-3)=(+5)+(-3)=+2$
 ㉡ $(+9)+\{(-4)+(-3)\}=(+9)+(-7)=+2$

4) ㉠ $+\dfrac{5}{2},+4$ ㉡ $+1,+4$
⇨ ㉠ $\left\{(+3)+\left(-\dfrac{1}{2}\right)\right\}+\left(+\dfrac{3}{2}\right)=\left(+\dfrac{5}{2}\right)+\left(+\dfrac{3}{2}\right)=+4$
 ㉡ $(+3)+\left\{\left(-\dfrac{1}{2}\right)+\left(+\dfrac{3}{2}\right)\right\}=(+3)+(+1)=+4$

5) (1) 덧셈의 교환법칙 (2) 덧셈의 결합법칙
⇨ (1)에서 -10 과 -2014 의 자리를 바꾸어 더했으므로 '덧셈의 교환법칙'을 사용하였다.
(2)에서 $+2014$ 와 -2014 를 먼저 더했으므로 '덧셈의 결합법칙'이 사용되었다.

6) (가) 덧셈의 교환법칙   (나) 덧셈의 결합법칙

7) -2
⇨ $(+4)+(-9)-(-3)=(+4)+(-9)+(+3)$
 $=(-5)+(+3)=-2$

8) -2
⇨ $(-3)+(+8)+(-7)=(+8)+\{(-3)+(-7)\}$
 $=(+8)+(-10)=-2$

9) 0
⇨ $(+5)+(-9)+(+4)=\{(+5)+(+4)\}+(-9)$
 $=(+9)+(-9)=0$

10) -4
⇨ $(+4)+(-2)-(+6)=(+4)+(-2)+(-6)$
 $=(+2)+(-6)=-4$

11) -1
⇨ $(+3)-(+9)+(+5)=(+3)+(-9)+(+5)$
 $=(-6)+(+5)=-1$

12) 0
⇨ $(-7)+(+5)-(-2)=(-7)+(+5)+(+2)$
 $=(-2)+(+2)=0$

13) $+6$
⇨ $(+1)-(-3)+(+2)=(+1)+(+3)+(+2)$
 $=(+4)+(+2)=+6$

14) -12
⇨ $(-2)+(-6)-(+4)=(-2)+(-6)+(-4)$
 $=(-8)+(-4)=-12$

15) -16
⇨ $(-3)-(+7)+(-6)=(-3)+(-7)+(-6)$
 $=(-10)+(-6)=-16$

16) -2
⇨ $(-9)-(-3)+(+4)=(-9)+(+3)+(+4)$
 $=(-6)+(+4)=-2$

17) $+\dfrac{7}{4}$
⇨ $\left(+\dfrac{3}{4}\right)-\left(-\dfrac{9}{4}\right)+\left(-\dfrac{5}{4}\right)=\left(+\dfrac{3}{4}\right)+\left(+\dfrac{9}{4}\right)+\left(-\dfrac{5}{4}\right)$
 $=\left(+\dfrac{12}{4}\right)+\left(-\dfrac{5}{4}\right)=+\dfrac{7}{4}$

18) $-\dfrac{1}{3}$
⇨ $\left(-\dfrac{2}{5}\right)+\left(+\dfrac{2}{3}\right)+\left(-\dfrac{3}{5}\right)$
 $=\left(+\dfrac{2}{3}\right)+\left(-\dfrac{2}{5}\right)+\left(-\dfrac{3}{5}\right)$
 $=\left(+\dfrac{2}{3}\right)+\left\{\left(-\dfrac{2}{5}\right)+\left(-\dfrac{3}{5}\right)\right\}$
 $=\left(+\dfrac{2}{3}\right)+(-1)$
 $=-\dfrac{1}{3}$

19) $+\dfrac{31}{24}$
⇨ $\left(+\dfrac{1}{8}\right)+\left(-\dfrac{1}{2}\right)-\left(-\dfrac{5}{3}\right)$
 $=\left(+\dfrac{1}{8}\right)+\left(-\dfrac{1}{2}\right)+\left(+\dfrac{5}{3}\right)$
 $=\left(+\dfrac{3}{24}\right)+\left(-\dfrac{12}{24}\right)+\left(+\dfrac{40}{24}\right)$
 $=\left(-\dfrac{9}{24}\right)+\left(+\dfrac{40}{24}\right)=+\dfrac{31}{24}$

20) 0
⇨ $\left(-\dfrac{7}{10}\right)-\left(+\dfrac{3}{5}\right)-(-1.3)$
 $=\left(-\dfrac{7}{10}\right)+\left(-\dfrac{3}{5}\right)+(+1.3)$
 $=\left(-\dfrac{7}{10}\right)+\left(-\dfrac{6}{10}\right)+\left(+\dfrac{13}{10}\right)$
 $=\left(-\dfrac{13}{10}\right)+\left(+\dfrac{13}{10}\right)=0$

21) $+\dfrac{14}{15}$

⇨ $(-2.2)+\left(+\dfrac{7}{3}\right)-\left(-\dfrac{4}{5}\right)$

$=(-2.2)+\left(+\dfrac{7}{3}\right)+\left(+\dfrac{4}{5}\right)$

$=\left(-\dfrac{11}{5}\right)+\left(+\dfrac{7}{3}\right)+\left(+\dfrac{4}{5}\right)$

$=\left(-\dfrac{33}{15}\right)+\left(+\dfrac{35}{15}\right)+\left(+\dfrac{12}{15}\right)$

$=\left(+\dfrac{2}{15}\right)+\left(+\dfrac{12}{15}\right)=+\dfrac{14}{15}$

22) $-\dfrac{1}{3}$

⇨ $(+4)+\left(-\dfrac{4}{3}\right)+(-3)=\{(+4)+(-3)\}+\left(-\dfrac{4}{3}\right)$

$=(+1)+\left(-\dfrac{4}{3}\right)=-\dfrac{1}{3}$

23) $+\dfrac{16}{5}$

⇨ $(+0.3)-\left(+\dfrac{1}{10}\right)+(+3)$

$=\left(+\dfrac{3}{10}\right)+\left(-\dfrac{1}{10}\right)+(+3)$

$=\left(+\dfrac{1}{5}\right)+(+3)=+\dfrac{16}{5}$

24) $+3$

⇨ $\left(-\dfrac{1}{3}\right)+(+6)+\left(-\dfrac{8}{3}\right)=(+6)+\left\{\left(-\dfrac{1}{3}\right)+\left(-\dfrac{8}{3}\right)\right\}$

$=(+6)+(-3)=+3$

25) $+5$

⇨ $(+6)+(-3)-(-7)-(+5)$

$=(+6)+(-3)+(+7)+(-5)$

$=\{(+6)+(+7)\}+\{(-3)+(-5)\}$

$=(+13)+(-8)=+5$

26) $+12$

⇨ $(-2)-(-6)+(+9)-(+1)$

$=(-2)+(+6)+(+9)+(-1)$

$=\{(+6)+(+9)\}+\{(-2)+(-1)\}$

$=(+15)+(-3)=+12$

27) -2

⇨ $\left(+\dfrac{5}{8}\right)-\left(+\dfrac{5}{4}\right)+\left(-\dfrac{7}{4}\right)-\left(-\dfrac{3}{8}\right)$

$=\left(+\dfrac{5}{8}\right)+\left(-\dfrac{5}{4}\right)+\left(-\dfrac{7}{4}\right)+\left(+\dfrac{3}{8}\right)$

$=\left\{\left(+\dfrac{5}{8}\right)+\left(+\dfrac{3}{8}\right)\right\}+\left\{\left(-\dfrac{5}{4}\right)+\left(-\dfrac{7}{4}\right)\right\}$

$=(+1)+(-3)=-2$

28) $+2$

⇨ $\left(+\dfrac{4}{5}\right)+\left(-\dfrac{1}{7}\right)+\left(+\dfrac{1}{5}\right)-\left(-\dfrac{8}{7}\right)$

$=\left(+\dfrac{4}{5}\right)+\left(-\dfrac{1}{7}\right)+\left(+\dfrac{1}{5}\right)+\left(+\dfrac{8}{7}\right)$

$=\left\{\left(+\dfrac{4}{5}\right)+\left(+\dfrac{1}{5}\right)\right\}+\left\{\left(-\dfrac{1}{7}\right)+\left(+\dfrac{8}{7}\right)\right\}$

$=(+1)+(+1)=+2$

29) -6

⇨ $(-1.4)-\left(+\dfrac{2}{9}\right)+(-2.6)-\left(+\dfrac{16}{9}\right)$

$=(-1.4)+\left(-\dfrac{2}{9}\right)+(-2.6)+\left(-\dfrac{16}{9}\right)$

$=\{(-1.4)+(-2.6)\}+\left\{\left(-\dfrac{2}{9}\right)+\left(-\dfrac{16}{9}\right)\right\}$

$=(-4)+(-2)=-6$

30) $-\dfrac{11}{10}$

⇨ $\left(+\dfrac{3}{10}\right)+(-0.8)-\left(-\dfrac{9}{10}\right)-(+1.5)$

$=\left(+\dfrac{3}{10}\right)+(-0.8)+\left(+\dfrac{9}{10}\right)+(-1.5)$

$=\left\{\left(+\dfrac{3}{10}\right)+\left(+\dfrac{9}{10}\right)\right\}+\{(-0.8)+(-1.5)\}$

$=\left(+\dfrac{12}{10}\right)+(-2.3)=\left(+\dfrac{12}{10}\right)+\left(-\dfrac{23}{10}\right)=-\dfrac{11}{10}$

31) ㉠ 교환법칙 ㉡ 결합법칙

⇨ ㉠ -3, $-\dfrac{1}{5}$의 자리를 바꾸어 곱했으므로

곱셈의 교환법칙

㉡ -15, $-\dfrac{1}{5}$를 먼저 곱했으므로

곱셈의 결합법칙

32) ㉠ 교환법칙 ㉡ 결합법칙

⇨ $+4$ 와 -5 의 자리를 바꾸어 곱했으므로

㉠ 에는 곱셈의 교환법칙

㉡ 에서는 곱셈의 순서를 바꾸었으므로

곱셈의 결합법칙

33) $+160$

⇨ $(-2)\times(+16)\times(-5)$

$=(-2)\times(-5)\times(+16)$

$=\{(-2)\times(-5)\}\times(+16)$

$=(+10)\times(+16)=+160$

34) $+270$

⇨ $(+5)\times(-9)\times(-6)$

$=(+5)\times(-6)\times(-9)$

$=\{(+5)\times(-6)\}\times(-9)$

$=(-30)\times(-9)=+270$

35) -330

$\Rightarrow (-5)\times(+11)\times(+6)$
$= (-5)\times(+6)\times(+11)$
$= \{(-5)\times(+6)\}\times(+11)$
$= (-30)\times(+11) = -330$

36) $-\dfrac{7}{3}$

$\Rightarrow \left(-\dfrac{3}{8}\right)\times(-7)\times\left(-\dfrac{8}{9}\right)$
$= (-7)\times\left(-\dfrac{3}{8}\right)\times\left(-\dfrac{8}{9}\right)$
$= (-7)\times\left\{\left(-\dfrac{3}{8}\right)\times\left(-\dfrac{8}{9}\right)\right\}$
$= (-7)\times\left(+\dfrac{1}{3}\right) = -\dfrac{7}{3}$

37) -1.8

$\Rightarrow (+5)\times(-0.9)\times(+0.4)$
$= (+5)\times(+0.4)\times(-0.9)$
$= \{(+5)\times(+0.4)\}\times(-0.9)$
$= (+2)\times(-0.9) = -1.8$

38) $+\dfrac{1}{2}$

$\Rightarrow (-0.9)\times\left(-\dfrac{1}{18}\right)\times(+10)$
$= (-0.9)\times(+10)\times\left(-\dfrac{1}{18}\right)$
$= \{(-0.9)\times(+10)\}\times\left(-\dfrac{1}{18}\right)$
$= (-9)\times\left(-\dfrac{1}{18}\right) = +\dfrac{1}{2}$

39) $+\dfrac{16}{3}$

$\Rightarrow (+0.02)\times\left(+\dfrac{8}{3}\right)\times(+100)$
$= (+0.02)\times(+100)\times\left(+\dfrac{8}{3}\right)$
$= \{(+0.02)\times(+100)\}\times\left(+\dfrac{8}{3}\right)$
$= (+2)\times\left(+\dfrac{8}{3}\right) = +\dfrac{16}{3}$

40) $+\dfrac{25}{21}$

$\Rightarrow \left(+\dfrac{3}{4}\right)\times\left(-\dfrac{5}{7}\right)\times\left(-\dfrac{20}{9}\right)$
$= \left(+\dfrac{3}{4}\right)\times\left(-\dfrac{20}{9}\right)\times\left(-\dfrac{5}{7}\right)$
$= \left\{\left(+\dfrac{3}{4}\right)\times\left(-\dfrac{20}{9}\right)\right\}\times\left(-\dfrac{5}{7}\right)$
$= \left(-\dfrac{5}{3}\right)\times\left(-\dfrac{5}{7}\right) = +\dfrac{25}{21}$

41) $-\dfrac{12}{25}$

$\Rightarrow \left(+\dfrac{2}{13}\right)\times\left(-\dfrac{3}{25}\right)\times(+26)$
$= \left(-\dfrac{3}{25}\right)\times\left(+\dfrac{2}{13}\right)\times(+26)$
$= \left(-\dfrac{3}{25}\right)\times\left\{\left(+\dfrac{2}{13}\right)\times(+26)\right\}$
$= \left(-\dfrac{3}{25}\right)\times(+4) = -\dfrac{12}{25}$

42) -1

$\Rightarrow \left(-\dfrac{3}{7}\right)\times(-0.5)\times\left(-\dfrac{14}{3}\right)$
$= \left(-\dfrac{3}{7}\right)\times\left(-\dfrac{14}{3}\right)\times(-0.5)$
$= \left\{\left(-\dfrac{3}{7}\right)\times\left(-\dfrac{14}{3}\right)\right\}\times(-0.5)$
$= (+2)\times(-0.5) = -1$

43) $+2.1$

$\Rightarrow \left(+\dfrac{7}{3}\right)\times(-0.7)\times\left(-\dfrac{9}{7}\right)$
$= (-0.7)\times\left(+\dfrac{7}{3}\right)\times\left(-\dfrac{9}{7}\right)$
$= (-0.7)\times\left\{\left(+\dfrac{7}{3}\right)\times\left(-\dfrac{9}{7}\right)\right\}$
$= (-0.7)\times(-3)$
$= +2.1$

44) $+10$

$\Rightarrow (-0.5)\times(+5)\times(-4)$
$= (-0.5)\times(-4)\times(+5)$
$= \{(-0.5)\times(-4)\}\times(+5)$
$= (+2)\times(+5)$
$= +10$

45) $+\dfrac{48}{5}$

$\Rightarrow \left(+\dfrac{1}{2}\right)\times\left(-\dfrac{4}{5}\right)\times(-24)$
$= \left(-\dfrac{4}{5}\right)\times\left(+\dfrac{1}{2}\right)\times(-24)$
$= \left(-\dfrac{4}{5}\right)\times\left\{\left(+\dfrac{1}{2}\right)\times(-24)\right\}$
$= \left(-\dfrac{4}{5}\right)\times(-12)$
$= +\dfrac{48}{5}$

46) $-\dfrac{4}{3}$

$\Rightarrow \left(+\dfrac{5}{7}\right)\times(-2)\times\left(+\dfrac{14}{15}\right)$
$= (-2)\times\left(+\dfrac{5}{7}\right)\times\left(+\dfrac{14}{15}\right)$
$= (-2)\times\left\{\left(+\dfrac{5}{7}\right)\times\left(+\dfrac{14}{15}\right)\right\}$
$= (-2)\times\left(+\dfrac{2}{3}\right) = -\dfrac{4}{3}$

47) $+\dfrac{2}{21}$

$\Rightarrow \left(+\dfrac{3}{8}\right)\times\left(-\dfrac{1}{7}\right)\times\left(-\dfrac{16}{9}\right)$

$=\left(+\dfrac{3}{8}\right)\times\left(-\dfrac{16}{9}\right)\times\left(-\dfrac{1}{7}\right)$

$=\left\{\left(+\dfrac{3}{8}\right)\times\left(-\dfrac{16}{9}\right)\right\}\times\left(-\dfrac{1}{7}\right)$

$=\left(-\dfrac{2}{3}\right)\times\left(-\dfrac{1}{7}\right)=+\dfrac{2}{21}$

48) $-\dfrac{3}{2}$

$\Rightarrow (+9)\times\left(-\dfrac{3}{14}\right)\times\left(+\dfrac{7}{9}\right)$

$=(+9)\times\left(+\dfrac{7}{9}\right)\times\left(-\dfrac{3}{14}\right)$

$=\left\{(+9)\times\left(+\dfrac{7}{9}\right)\right\}\times\left(-\dfrac{3}{14}\right)$

$=(+7)\times\left(-\dfrac{3}{14}\right)=-\dfrac{3}{2}$

49) $+4.4$

$\Rightarrow (-5)\times(-1.1)\times(+0.8)$

$=(-5)\times(+0.8)\times(-1.1)$

$=\{(-5)\times(+0.8)\}\times(-1.1)$

$=(-4)\times(-1.1)=+4.4$

50) $+\dfrac{11}{2}$

$\Rightarrow \left(-\dfrac{8}{21}\right)\times(-11)\times\left(+\dfrac{21}{16}\right)$

$=(-11)\times\left(-\dfrac{8}{21}\right)\times\left(+\dfrac{21}{16}\right)$

$=(-11)\times\left\{\left(-\dfrac{8}{21}\right)\times\left(+\dfrac{21}{16}\right)\right\}$

$=(-11)\times\left(-\dfrac{1}{2}\right)=+\dfrac{11}{2}$

51) $+900$

$\Rightarrow (-4)\times(+9)\times(-25)=(+9)\times\{(-4)\times(-25)\}$

$=(+9)\times(+100)=+900$

52) -72

$\Rightarrow (-10)\times(+8)\times(+0.9)$

$=(+8)\times\{(-10)\times(+0.9)\}$

$=(+8)\times(-9)=-72$

53) $+14$

$\Rightarrow (-3)\times(+14)\times\left(-\dfrac{1}{3}\right)=(+14)\times\left\{(-3)\times\left(-\dfrac{1}{3}\right)\right\}$

$=(+14)\times(+1)=+14$

54) $+30$

$\Rightarrow \left(+\dfrac{5}{8}\right)\times(-3)\times(-16)=\left\{\left(+\dfrac{5}{8}\right)\times(-16)\right\}\times(-3)$

$=(-10)\times(-3)=+30$

55) $\dfrac{2}{3}$

$\Rightarrow \left(-\dfrac{7}{4}\right)\times\left(+\dfrac{2}{3}\right)\times\left(-\dfrac{4}{7}\right)$

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

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

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

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

56) $\dfrac{3}{2}$

$\Rightarrow \left(+\dfrac{2}{5}\right)\times\left(-\dfrac{1}{3}\right)\times\left(-\dfrac{5}{4}\right)\times(+9)$

$=\left(+\dfrac{2}{5}\right)\times\left(-\dfrac{5}{4}\right)\times\left(-\dfrac{1}{3}\right)\times(+9)$

$=\left(+\dfrac{2}{5}\right)\times\left(-\dfrac{5}{4}\right)\times\left\{\left(-\dfrac{1}{3}\right)\times(+9)\right\}$

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

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

57) $+15$

$\Rightarrow (+4)\times\left(+\dfrac{5}{6}\right)\times(-5)\times\left(-\dfrac{9}{10}\right)$

$=+\left(4\times\dfrac{5}{6}\times5\times\dfrac{9}{10}\right)=+15$

58) -32

$\Rightarrow \left(-\dfrac{8}{11}\right)\times(+1.5)\times\left(+\dfrac{22}{3}\right)\times(+4)$

$=\left(-\dfrac{8}{11}\right)\times\left(+\dfrac{3}{2}\right)\times\left(+\dfrac{22}{3}\right)\times(+4)$

$=-\left(\dfrac{8}{11}\times\dfrac{3}{2}\times\dfrac{22}{3}\times4\right)=-32$

59) $+48$

$\Rightarrow \left(-\dfrac{12}{5}\right)\times\left(-\dfrac{14}{9}\right)\times(-3.6)\times\left(-\dfrac{25}{7}\right)$

$=\left(-\dfrac{12}{5}\right)\times\left(-\dfrac{14}{9}\right)\times\left(-\dfrac{18}{5}\right)\times\left(-\dfrac{25}{7}\right)$

$=+\left(\dfrac{12}{5}\times\dfrac{14}{9}\times\dfrac{18}{5}\times\dfrac{25}{7}\right)=+48$

60) X

$\Rightarrow a\div b\times c=\dfrac{ac}{b},\ a\div(b\times c)=\dfrac{a}{bc}$

61) X

$\Rightarrow a\div b\div c=\dfrac{a}{bc},\ a\div(b\div c)=\dfrac{ac}{b}$

62) ○

63) ○

64) X

⇨ $a \div (b+c) = \dfrac{a}{b+c}, \ a \div b + a \div c = \dfrac{a}{b} + \dfrac{a}{c}$

65) 465

⇨ $5 \times (100-7) = 5 \times 100 - 5 \times 7 = 500 - 35 = 465$

66) 27

⇨ $(4+0.5) \times 6 = 4 \times 6 + 0.5 \times 6 = 24 + 3 = 27$

67) 612

⇨ $34 \times (20-2) = 34 \times 20 - 34 \times 2$
$= 680 - 68 = 612$

68) 2525

⇨ $25 \times (100+1) = 25 \times 100 + 25 \times 1$
$= 2500 + 25 = 2525$

69) -5

⇨ $(-4) \times \left(\dfrac{3}{2} - \dfrac{1}{4}\right) = (-4) \times \dfrac{3}{2} - (-4) \times \dfrac{1}{4}$
$= -6 - (-1) = -6 + 1 = -5$

70) $\dfrac{19}{15}$

⇨ $\dfrac{5}{4} \times \left(\dfrac{8}{15} + \dfrac{12}{25}\right) = \left(\dfrac{5}{4} \times \dfrac{8}{15}\right) + \left(\dfrac{5}{4} \times \dfrac{12}{25}\right)$
$= \dfrac{2}{3} + \dfrac{3}{5} = \dfrac{10}{15} + \dfrac{9}{15} = \dfrac{19}{15}$

71) $-\dfrac{4}{3}$

⇨ $-12 \times \left(\dfrac{1}{6} - \dfrac{1}{18}\right)$
$= \left(-12 \times \dfrac{1}{6}\right) - \left(-12 \times \dfrac{1}{18}\right) = (-2) - \left(-\dfrac{2}{3}\right)$
$= \left(-\dfrac{6}{3}\right) + \left(+\dfrac{2}{3}\right) = -\dfrac{4}{3}$

72) $-\dfrac{9}{5}$

⇨ $\left(\dfrac{1}{3} - \dfrac{8}{15}\right) \times 9 = \left(\dfrac{1}{3} \times 9\right) - \left(\dfrac{8}{15} \times 9\right)$
$= 3 - \dfrac{24}{5} = \dfrac{15}{5} - \dfrac{24}{5} = -\dfrac{9}{5}$

73) $-\dfrac{6}{5}$

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

74) 112

⇨ $(50+6) \times 2 = 50 \times 2 + 6 \times 2 = 100 + 12 = 112$

75) -17

⇨ $6 \times \left(\dfrac{2}{3} - \dfrac{7}{2}\right) = 6 \times \dfrac{2}{3} - 6 \times \dfrac{7}{2} = 4 - 21 = -17$

76) 25

⇨ $\left(\dfrac{5}{4} - \dfrac{10}{3}\right) \times (-12) = \dfrac{5}{4} \times (-12) - \dfrac{10}{3} \times (-12)$
$= -15 + 40 = 25$

77) 11

⇨ $\dfrac{2}{13} \times \left(52 + \dfrac{39}{2}\right)$
$= \left(\dfrac{2}{13} \times 52\right) + \left(\dfrac{2}{13} \times \dfrac{39}{2}\right)$
$= 8 + 3 = 11$

78) -8

⇨ $(-5) \times (2-0.4) = (-5) \times 2 - (-5) \times 0.4$
$= -10 + 2 = -8$

79) $+\dfrac{14}{15}$

⇨ $\left(+\dfrac{3}{10}\right) \times (-4) + \left(-\dfrac{8}{15}\right) \times (-4)$
$= \left(+\dfrac{3}{10} - \dfrac{8}{15}\right) \times (-4) = \left(+\dfrac{9}{30} - \dfrac{16}{30}\right) \times (-4)$
$= \left(-\dfrac{7}{30}\right) \times (-4) = +\dfrac{14}{15}$

80) $-\dfrac{3}{10}$

⇨ $\dfrac{1}{4} \times \left(-\dfrac{1}{5}\right) - \dfrac{1}{4} \times 1 = \dfrac{1}{4} \times \left(-\dfrac{1}{5} - 1\right)$
$= \dfrac{1}{4} \times \left(-\dfrac{6}{5}\right) = -\dfrac{3}{10}$

81) 1500

⇨ (주어진 식)
$= 15 \times (65+35) = 15 \times 100 = 1500$

82) -280

⇨ $28 \times (-18) + 28 \times (+8)$
$= 28 \times (-18+8) = 28 \times (-10) = -280$

83) 160

⇨ $16 \times (+26) + 16 \times (-16) = 16 \times (26-16)$
$= 16 \times 10 = 160$

84) -45

⇨ $(+29) \times 9 + (-34) \times 9 = (29-34) \times 9$
$= (-5) \times 9 = -45$

85) -240

$\Rightarrow (-12) \times 24 + (+2) \times 24$
$= \{(-12) \times (+2)\} \times 24 = -10 \times 24 = -240$

86) 180

$\Rightarrow 3 \times 27 + 3 \times 33 = 3 \times (27 + 33) = 3 \times 60 = 180$

87) 2400

$\Rightarrow 122 \times 24 - 22 \times 24 = (122 - 22) \times 24 = 100 \times 24 = 2400$

88) 14

$\Rightarrow \frac{7}{12} \times 37 - \frac{7}{12} \times 13 = \frac{7}{12} \times (37 - 13) = \frac{7}{12} \times 24 = 14$

89) 28

$\Rightarrow 14 \times \frac{4}{3} + 7 \times \frac{4}{3} = (14 + 7) \times \frac{4}{3} = 21 \times \frac{4}{3} = 28$

90) 175

$\Rightarrow 1.75 \times 84 + 1.75 \times 16 = 1.75 \times (84 + 16) = 1.75 \times 100 = 175$

91) 60

$\Rightarrow 73 \times 1.2 - 23 \times 1.2 = (73 - 23) \times 1.2 = 50 \times 1.2 = 60$

92) 6700

$\Rightarrow$ (주어진 식)
$\qquad = 67 \times (97 + 3) = 67 \times 100 = 6700$

93) 260

$\Rightarrow$ (주어진 식)
$\qquad = (49 + 51) \times 2.6 = 100 \times 2.6 = 260$

94) 7

$\Rightarrow$ (주어진 식)
$\qquad = 0.7 \times (27 - 17) = 0.7 \times 10 = 7$

95) 1

$\Rightarrow \frac{1}{18} \times 6 + \frac{1}{18} \times 12 = \frac{1}{18} \times (6 + 12)$
$\qquad\qquad\qquad = \frac{1}{18} \times 18 = 1$

96) -6

$\Rightarrow \frac{3}{7} \times 4 - \frac{3}{7} \times 18 = \frac{3}{7} \times (4 - 18)$
$\qquad\qquad\qquad = \frac{3}{7} \times (-14) = -6$

97) 8

$\Rightarrow 2 \times \frac{4}{5} + 8 \times \frac{4}{5} = (2 + 8) \times \frac{4}{5} = 10 \times \frac{4}{5} = 8$

98) 1400

$\Rightarrow 64 \times 14 + 36 \times 14 = (64 + 36) \times 14$
$\qquad\qquad\qquad\qquad = 100 \times 14 = 1400$

99) 135

$\Rightarrow 135 \times 99 - 135 \times 98 = 135 \times (99 - 98)$
$\qquad\qquad\qquad\qquad = 135 \times 1 = 135$

100) 33330000

$\Rightarrow 3 \times 3333 \times 2222 + 3333 \times 3334$
$\quad = 3333 \times (2 \times 2222 + 3334)$
$\quad = 3333 \times (6666 + 3334)$
$\quad = 3333 \times 10000$
$\quad = 33330000$

101) 25

$\Rightarrow 2.5 \times \{(-12580) + 12590\}$
$\quad = 2.5 \times (+10)$
$\quad = 25$

102) 314

$\Rightarrow 3.14 \times (118 - 18)$
$\quad = 3.14 \times 100$
$\quad = 314$

103) 123

$\Rightarrow 0.123 \times 1203 + 0.123 \times (-203)$
$\quad = 0.123 \times (1203 - 203) = 0.123 \times 1000 = 123$

104) 2

$\Rightarrow 5.23 \times (-1.6) + 5.23 \times 2.1 - 1.23 \times 0.5$
$\quad = 5.23 \times (-1.6 + 2.1) - 1.23 \times 0.5$
$\quad = 5.23 \times 0.5 - 1.23 \times 0.5$
$\quad = (5.23 - 1.23) \times 0.5$
$\quad = 4 \times 0.5$
$\quad = 2$

105) 4

$\Rightarrow$ 분배법칙에 의해
$\quad 9.23 \times 3.3 + 9.23 \times (-2.8) - 0.5 \times 1.23$
$\quad = 9.23 \times (3.3 - 2.8) - 0.5 \times 1.23$
$\quad = 9.23 \times 0.5 - 0.5 \times 1.23$
$\quad = 0.5 \times (9.23 - 1.23)$
$\quad = 0.5 \times 8$
$\quad = 4$

106) 287

$\Rightarrow 3.64 \times (2 + 98) - 7 \times (5.7 + 5.3)$
$\quad = 3.64 \times 100 - 7 \times 11$
$\quad = 364 - 77$
$\quad = 287$