

计算专题答案解析

$$1. \left(-\frac{1}{4} + \frac{1}{6} - \frac{1}{8} + \frac{1}{12}\right) \times (-24)$$

解：原式 $= \left(-\frac{1}{4}\right) \times (-24) + \frac{1}{6} \times (-24) + \left(-\frac{1}{8}\right) \times (-24) + \frac{1}{12} \times (-24)$

$$= -6 - 4 + 3 - 2$$

$$= -3$$

$$2. \left(-\frac{1}{30}\right) \div \left(\frac{2}{3} - \frac{1}{10} + \frac{1}{6} - \frac{2}{5}\right)$$

解：原式 $= \left(-\frac{1}{30}\right) \div \left(\frac{2}{3} + \frac{1}{6} - \frac{1}{10} - \frac{2}{5}\right)$

$$= \left(-\frac{1}{30}\right) \div \left(\frac{5}{6} - \frac{1}{2}\right)$$

$$= \left(-\frac{1}{30}\right) \div \left(\frac{25}{30} - \frac{15}{30}\right)$$

$$= \left(-\frac{1}{30}\right) \times \frac{30}{10}$$

$$= -\frac{1}{10}$$

$$3. (-3) + (-5) - (-4)$$

解：原式 $= -8 + 4$

$$= -4$$

$$4. \frac{1}{2002} + \frac{1}{3003} + \frac{1}{4004} + \frac{1}{6006} - \frac{1}{8008}$$

解：原式 $= \frac{1}{1001} \times \left(\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{6} - \frac{1}{8}\right)$

$$= \frac{1}{1001} \times \frac{9}{8}$$

$$= \frac{9}{8008}$$

$$5. 4.62 + (-19\frac{1}{3}) + \frac{1}{3} - (-0.38)$$

解：原式 = $4.62 - (-0.38) + (\frac{1}{3} - 19\frac{1}{3})$

$$= 5 - 19$$

$$= -14$$

$$6. [47 - (18.75 - 1 \div \frac{8}{15}) \times 2 \frac{6}{25}] \div 0.46$$

解：原式 = $[47 - (\frac{75}{4} - \frac{15}{8}) \times \frac{56}{25}] \times \frac{50}{23}$

$$= [47 - \frac{125}{8} \times \frac{56}{25}] \times \frac{50}{23}$$

$$= [\frac{235}{5} - \frac{189}{5}] \times \frac{50}{23}$$

$$= \frac{46}{5} \times \frac{50}{23}$$

$$= 20$$

$$7. 1\frac{3}{7} - 2\frac{1}{4} + (-12\frac{3}{7}) + \frac{5}{4}$$

解：原式 = $1\frac{3}{7} - 12\frac{3}{7} - \frac{9}{4} + \frac{5}{4}$

$$= -11 - 1$$

$$= -12$$

$$8. (-0.125) \times (-\frac{4}{17}) \times 8 \times (-7)$$

解：原式 = $(-0.125) \times 8 \times (-\frac{4}{17}) \times (-7)$

$$= -1 \times 4$$

$$= -4$$

$$9. 1 - \frac{1}{9} - \frac{2}{9} - \dots - \frac{8}{9}$$

解：原式 $= 1 - (\frac{1}{9} + \frac{8}{9}) - (\frac{2}{9} + \frac{7}{9}) - \dots - (\frac{4}{9} + \frac{5}{9})$
 $= 1 - 4$
 $= -3$

$$10. -0.5 - (-3\frac{1}{4}) + 2.75 - (+7\frac{1}{2})$$

解：原式 $= -0.5 - 7.5 + 3.25 + 2.75$
 $= -8 + (3.25 + 2.75)$
 $= -8 + 6$
 $= -2$

$$11. [\frac{3}{5} + (-\frac{1}{2}) + (-\frac{5}{12})] \times 60$$

解：原式 $= \frac{3}{5} \times 60 + (-\frac{1}{2}) \times 60 + (-\frac{5}{12}) \times 60$
 $= 36 - 30 - 25$
 $= -19$

$$12. 3.46 + 4\frac{5}{6} - \frac{1}{3} - 3.87 - 2\frac{1}{4}$$

解：原式 $= 3.46 + (\frac{29}{6} - \frac{2}{6}) - 3.87 - 2.25$
 $= 3.46 + \frac{27}{6} - 3.87 - 2.25$
 $= 3.46 + 4.5 - 3.87 - 2.25$
 $= 1.84$

$$13. (-56) \times (-1\frac{5}{16}) \div (1\frac{3}{4}) \times \frac{4}{7}$$

解：原式 $= (-56) \times (-\frac{21}{16}) \times \frac{4}{7} \times \frac{4}{7}$
 $= (-56) \times (-\frac{3}{7})$
 $= 24$

$$14. -1^4 \times (-2)^3 \div [(-1)^6 \div \frac{1}{6} \times 3] + 3 \times (-2)^2$$

解：原式 $= -1 \times (-8) \div (1 \times 6 \times 3) + 3 \times 4$
 $= 8 \times \frac{1}{18} + 12$
 $= \frac{4}{9} + 12$
 $= 12\frac{4}{9}$



$$15. -3^2 + (-\frac{5}{2})^2 \times (-\frac{4}{25}) + (-1)^{2017}$$

解：原式 $= -9 + (-\frac{5}{2})^2 \times (-\frac{4}{25}) + (-1)$
 $= -9 + \frac{25}{4} \times (-\frac{4}{25}) - 1$
 $= -11$

$$16. -5^2 - [(-2)^3] + (1 - 0.8 \times \frac{3}{4}) \div \frac{1}{5}$$

解：原式 $= -25 - (-8) + (1 - \frac{4}{5} \times \frac{3}{4}) \div \frac{1}{5}$
 $= -25 + 8 + \frac{2}{5} \times 5$
 $= -25 + 10$
 $= -15$

$$17. (-2)^2 + (-1-3) \div (-\frac{2}{3}) + |-\frac{1}{16}| \times (-2)$$

解：原式 $= 4 + (-4) \div (-\frac{2}{3}) + \frac{1}{16} \times (-2)$
 $= 4 + (-4) \times (-\frac{3}{2}) + (-\frac{1}{8})$
 $= 4 + 6 - \frac{1}{8}$
 $= 9\frac{7}{8}$

$$18. \frac{1}{1 \times 2} + \frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \dots + \frac{1}{99 \times 100}$$

$$\begin{aligned} \text{解: 原式} &= 1 - \frac{1}{2} + \frac{1}{2} - \frac{1}{3} + \frac{1}{3} - \frac{1}{4} + \dots + \frac{1}{99} - \frac{1}{100} \\ &= \frac{99}{100} \end{aligned}$$

$$19. 6 \times \left(\frac{8}{9} - \frac{7}{8} \right) \times (-12)$$

$$\begin{aligned} \text{解: 原式} &= 6 \times \frac{1}{72} \times (-12) \\ &= -1 \end{aligned}$$

$$20. [12 - 4 \times (3 - 10)] \div 4$$

$$\begin{aligned} \text{解: 原式} &= [12 - 4 \times (-7)] \times \frac{1}{4} \\ &= 40 \times \frac{1}{4} \\ &= 10 \end{aligned}$$

$$21. 1.999 - 19.99 - 199.9 - 1999$$

$$\begin{aligned} \text{解: 原式} &= 2 - 0.001 - 20 + 0.01 - 200 + 0.1 - 2000 + 1 \\ &= 2 - 20 - 200 - 2000 + 1.11 - 0.001 \\ &= -2220 + 2 + 1.109 \\ &= -2218 + 1.109 \\ &= -2216.891 \end{aligned}$$

$$22. 8 + 97 + 999 + 96 + 9995$$

解：原式 $= (10-2) + (100-3) + (1000-1) + (100-4) + (10000-5)$

$$= 11210 - 15$$

$$= 11195$$

$$23. (0.25 - \frac{2}{3}) \times (-36)$$

解：原式 $= -\frac{1}{4} \times 36 + \frac{2}{3} \times 36$

$$= -9 + 24$$

$$= 15$$

$$24. 3 \div (-\frac{3}{10}) \div \frac{1}{12}$$

解：原式 $= 3 \times (-\frac{10}{3}) \times 12$

$$= -10 \times 12$$

$$= -120$$

$$25. (-2\frac{1}{2}) \div (-5) \times (-3\frac{1}{3})$$

解：原式 $= -\frac{5}{2} \times (-\frac{1}{5}) \times (-\frac{10}{3})$

$$= -\frac{5}{3}$$

$$26. -0.2 \div (-1\frac{1}{5}) \times (-2\frac{1}{6})$$

解：原式 = $-\frac{1}{5} \times (-\frac{5}{6}) \times (-\frac{13}{6})$

$$= -\frac{13}{36}$$

$$27. 3.14 \times 4\frac{3}{10} + 31.4 \times 72\% - 0.314 \times 15$$

解：原式 = $3.14 \times (4.3 + 7.2 - 1.5)$

$$= 3.14 \times 10$$

$$= 31.4$$

$$28. (-3\frac{1}{3}) \div (-2\frac{1}{3}) \times (-1\frac{1}{7})$$

解：原式 = $-\frac{10}{3} \times (-\frac{3}{7}) \times (-\frac{8}{7})$

$$= \frac{10}{7} \times (-\frac{8}{7})$$

$$= -\frac{80}{49}$$

$$29. -9 \div (-0.375) \times \frac{3}{16}$$

解：原式 = $-9 \div (-\frac{3}{8}) \times \frac{3}{16}$

$$= -9 \times (-\frac{8}{3}) \times \frac{3}{16}$$

$$= -9 \times (-\frac{1}{2})$$

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

30. $2 \times (3 - 30) + 34$

解：原式 $= 2 \times (-27) + 34$
 $= -54 + 34$
 $= -20$

31. $\left| -\frac{13}{6} \right| \times \left(-\frac{11}{13} \right) \div \left(\frac{1}{2} - 2 \right)^2$

解：原式 $= \frac{13}{6} \times \left(-\frac{11}{13} \right) \div \frac{9}{4}$
 $= -\frac{11}{6} \times \frac{4}{9}$
 $= -\frac{22}{27}$

32. $-3 \times \left(-\frac{1}{3} \right)^2 \div \left(-\frac{2}{3} \right)^2$

解：原式 $= -3 \times \frac{1}{9} \div \frac{4}{9}$
 $= -\frac{1}{3} \times \frac{9}{4}$
 $= -\frac{3}{4}$

33. $-2^2 + |5 - 8| + 24 - (-3 + 2)$

解：原式 $= -4 + 3 + 24 + 1$
 $= 24$

34. $\frac{2}{7} \times (-1.6) \div \left(10 - \frac{7}{8} \div \frac{3}{16} \right)$

解：原式 $= \frac{2}{7} \times \left(-\frac{8}{5} \right) \div \left(10 - \frac{14}{3} \right)$
 $= \frac{2}{7} \times \left(-\frac{8}{5} \right) \div \frac{16}{3}$
 $= \frac{2}{7} \times \left(-\frac{8}{5} \right) \times \frac{3}{16}$
 $= -\frac{3}{35}$

$$35. -1\frac{1}{9} \times (5\frac{1}{5} \div 4\frac{1}{3} - 2\frac{5}{7} \times \frac{21}{38})$$

$$\text{解：原式} = -\frac{10}{9} \times \left(\frac{26}{5} \times \frac{3}{13} - \frac{19}{7} \times \frac{21}{38} \right)$$

$$= -\frac{10}{9} \times \left(\frac{6}{5} - \frac{3}{2} \right)$$

$$= -\frac{10}{9} \times \left(-\frac{3}{10} \right)$$

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

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$$36. \left[\left(\frac{1}{5} - \frac{1}{6} \right) \times 1.5 + 2.45 \right] \times \left(1.7 - 1\frac{7}{10} \right)$$

$$\text{解：原式} = \left[\left(\frac{1}{5} - \frac{1}{6} \right) \times 1.5 + 2.45 \right] \times 0$$

$$= 0$$

$$37. 99.9 \times 98 + \left(0.8 - \frac{3}{5} \right) \times 999$$

$$\text{解：原式} = 99.9 \times 98 + 0.2 \times 999$$

$$= 99.9 \times 98 + 2 \times 99.9$$

$$= 99.9 \times (98 + 2)$$

$$= 99.9 \times 100$$

$$= 9990$$

$$38. 45 \times \left[\left(-\frac{8}{15} \right) - \left(\frac{1}{5} + \frac{1}{6} \right) \right]$$

$$\begin{aligned} \text{解: 原式} &= 45 \times \left[\left(-\frac{8}{15} \right) - \frac{11}{30} \right] \\ &= 45 \times \left[\left(-\frac{8}{15} \right) - \frac{11}{30} \right] \\ &= 45 \times \left(-\frac{9}{10} \right) \\ &= -\frac{81}{2} \end{aligned}$$

$$39. 31\frac{1}{5} \times \frac{5}{6} - 22\frac{1}{6} + 31\frac{6}{7} \times 1\frac{1}{6}$$

$$\begin{aligned} \text{解: 原式} &= \frac{156}{5} \times \frac{5}{6} - \frac{133}{6} + \frac{223}{7} \times \frac{7}{6} \\ &= \frac{156 - 133 + 223}{6} \\ &= \frac{246}{6} \\ &= 41 \end{aligned}$$

$$40. 17 - 8 \div (-2) + 4 \times (-3)$$

$$\begin{aligned} \text{解: 原式} &= 17 - 8 \times \left(-\frac{1}{2} \right) + (-12) \\ &= 17 + 4 + (-12) \\ &= 9 \end{aligned}$$

$$41. (-1\frac{1}{2}) + (+1\frac{1}{4}) + (-2\frac{1}{2}) - (-3\frac{1}{4}) - (+1\frac{1}{4})$$

$$\begin{aligned} \text{解: 原式} &= 1\frac{1}{4} + 3\frac{1}{4} - \left(1\frac{1}{2} + 2\frac{1}{2} + 1\frac{1}{4}\right) \\ &= 4\frac{1}{2} - 5\frac{1}{4} \\ &= -\frac{3}{4} \end{aligned}$$

$$42. \frac{15}{8} \div (-10) \times (-\frac{10}{3}) \div (-\frac{15}{4})$$

$$\begin{aligned} \text{解: 原式} &= \frac{15}{8} \times (-\frac{1}{10}) \times (-\frac{10}{3}) \times (-\frac{4}{15}) \\ &= -\frac{1}{6} \end{aligned}$$

$$43. [(-\frac{5}{3}) - \frac{5}{6} + (-\frac{7}{4}) - \frac{7}{8}] \div (\frac{5}{6} + \frac{7}{8})$$

$$\begin{aligned} \text{解: 原式} &= \left[-\left(\frac{5}{3} + \frac{5}{6} + \frac{7}{4} + \frac{7}{8}\right)\right] \div \left(\frac{20}{24} + \frac{21}{24}\right) \\ &= -\frac{123}{24} \div \frac{41}{24} \\ &= -\frac{123}{24} \times \frac{24}{41} \\ &= -3 \end{aligned}$$

$$44. 2 \times (-3)^2 - 4 \times (-3) + 15$$

$$\begin{aligned} \text{解: 原式} &= 2 \times 9 + 12 + 15 \\ &= 30 + 15 \\ &= 45 \end{aligned}$$

$$45. 2\frac{1}{4} \times (-\frac{6}{7}) \div (\frac{1}{2} - 1)$$

$$\begin{aligned} \text{解: 原式} &= \frac{9}{4} \times \left(-\frac{6}{7}\right) \div \left(-\frac{1}{2}\right) \\ &= \frac{27}{7} \end{aligned}$$

$$46. (-5) \times (-3\frac{6}{7}) + (-7) \times (-3\frac{6}{7}) + 12 \times (-3\frac{6}{7})$$

$$\begin{aligned} \text{解: 原式} &= -3\frac{6}{7} \times (-5 - 7 + 12) \\ &= 0 \end{aligned}$$

$$47. (-23) \times 1.8 \times (-1\frac{1}{3}) \div 1\frac{3}{5} \div (\frac{2}{3} - 2)$$

$$\begin{aligned} \text{解: 原式} &= (-23) \times \frac{9}{5} \times \left(-\frac{4}{3}\right) \times \frac{5}{8} \times \left(-\frac{3}{4}\right) \\ &= -\frac{207}{8} \end{aligned}$$

$$48. -1\frac{1}{2} \div \frac{3}{4} \times (-0.2) \times 1\frac{3}{4} \div 1.4 \times (-\frac{3}{5})$$

$$\begin{aligned} \text{解: 原式} &= -\frac{3}{2} \times \frac{4}{3} \times \left(-\frac{1}{5}\right) \times \frac{7}{4} \times \frac{5}{7} \times \left(-\frac{3}{5}\right) \\ &= -\frac{3}{10} \end{aligned}$$

$$49. -|-2\frac{3}{4}|\div\frac{11}{8}-[(-4.4)-6.6]$$

$$\begin{aligned} \text{解: 原式} &= -\frac{11}{4}\times\frac{8}{11}-(-11) \\ &= -2+11 \\ &= 9 \end{aligned}$$

$$50. -16-(0.5-\frac{2}{3})\div\frac{1}{3}\times[-2-(-27)]$$

$$\begin{aligned} \text{解: 原式} &= -16-\left(-\frac{1}{6}\right)\times 3\times 25 \\ &= -16+\frac{25}{2} \\ &= -\frac{7}{2} \end{aligned}$$

$$51. -3.61\times 0.75+0.61\times\frac{3}{4}+(-0.2)\times 75\%$$

$$\begin{aligned} \text{解: 原式} &= 0.75\times(-3.61+0.61-0.2) \\ &= \frac{3}{4}\times(-3.2) \\ &= -2.4 \end{aligned}$$

$$52. -2^2-(-2^2)+(-2)^2+(-2)^3-3^2$$

$$\begin{aligned} \text{解: 原式} &= -4+4+4-8-9 \\ &= -13 \end{aligned}$$

$$53. 8+(-\frac{1}{4})-5-(-0.25)$$

$$\begin{aligned} \text{解: 原式} &= 8-\frac{1}{4}-5+0.25 \\ &= 3 \end{aligned}$$

$$54. -54\times 2\frac{1}{4}\div(-4\frac{1}{2})\times\frac{2}{9}+\frac{1}{2}$$

$$\begin{aligned} \text{解: 原式} &= -54\times\frac{9}{4}\times\left(-\frac{2}{9}\right)\times\frac{2}{9}+\frac{1}{2} \\ &= 6+\frac{1}{2} \\ &= 6\frac{1}{2} \end{aligned}$$

$$55. [1\frac{1}{24}-\left(\frac{3}{8}+\frac{1}{6}-\frac{3}{4}\right)]\div(-5)$$

$$\begin{aligned} \text{解: 原式} &= \left(\frac{25}{24}+\frac{5}{24}\right)\times\left(-\frac{1}{5}\right) \\ &= -\frac{1}{4} \end{aligned}$$

$$56. -3-[-5+(1-2\times\frac{3}{5})\div(-2)]$$

$$\begin{aligned} \text{解: 原式} &= -3-\left(-5+\frac{1}{5}\times\frac{1}{2}\right) \\ &= -3+5-\frac{1}{10} \\ &= 1\frac{9}{10} \end{aligned}$$

$$57. (-3^2) \div (-2\frac{2}{5}) - (-2)^3 \times \frac{5}{12} - 5 \times \frac{5}{3} \div 4$$

$$\begin{aligned} \text{解: 原式} &= -9 \times \left(-\frac{5}{12}\right) - (-8) \times \frac{5}{12} - 5 \times \frac{5}{3} \times \frac{1}{4} \\ &= \frac{15}{4} + \frac{10}{3} - \frac{25}{12} \\ &= 5 \end{aligned}$$

$$58. \left(-3\frac{1}{2}\right)^2 + 6\frac{1}{2} \times (-2)^4 \div [-(2)^4 - (-2)^4]$$

$$\begin{aligned} \text{解: 原式} &= \frac{49}{4} + \frac{13}{2} \times 16 \div (-32) \\ &= \frac{49}{4} - \frac{13}{4} \\ &= 9 \end{aligned}$$

$$59. -2^2 \times \frac{1}{2} - (-1\frac{3}{5})^2 \div (-\frac{4}{5}) - (-1)^5$$

$$\begin{aligned} \text{解: 原式} &= -4 \times \frac{1}{2} - \frac{64}{25} \times \left(-\frac{5}{4}\right) + 1 \\ &= \frac{11}{5} \end{aligned}$$

$$60. -3^3 \times (-5) + 16 \div (-2)^3 - \left(\frac{5}{8} - 0.625\right)^{2017}$$

$$\begin{aligned} \text{解: 原式} &= -27 \times (-5) + 16 \times \left(-\frac{1}{8}\right) - 0 \\ &= 135 - 2 \\ &= 133 \end{aligned}$$

$$61. \left[(-\frac{1}{2})^2 + (-\frac{1}{4}) \times 16 + 4^2\right] \div \left[(-\frac{3}{2}) - 3\right]$$

$$\begin{aligned} \text{解: 原式} &= \left[\frac{1}{4} + (-4) + 16\right] \div \left(-\frac{9}{2}\right) \\ &= \frac{49}{4} \times \left(-\frac{2}{9}\right) \\ &= -\frac{49}{18} \end{aligned}$$

$$62. \left(-6\frac{1}{2}\right) \times \frac{4}{3} + (-2)^4 \div (-2^4 + 10) \times (-1)^{2017}$$

$$\begin{aligned} \text{解: 原式} &= -\frac{13}{2} \times \frac{4}{3} + 16 \div (-16 + 10) \times (-1) \\ &= -\frac{26}{3} + 16 \times \left(-\frac{1}{6}\right) \times (-1) \\ &= -\frac{26}{3} + \frac{8}{3} \\ &= -6 \end{aligned}$$

$$63. 1 - 2 - 3 + 4 + 5 - 6 - 7 + 8 + \dots + 97 - 98 - 99 + 100$$

$$\begin{aligned} \text{解: 原式} &= (1 - 2 - 3 + 4) + (5 - 6 - 7 + 8) + \dots + (97 - 98 - 99 + 100) \\ &= 0 + 0 + 0 + \dots + 0 \\ &= 0 \end{aligned}$$

$$64. \frac{5}{2} + \frac{9}{4} + \frac{17}{8} + \frac{33}{16} + \frac{65}{32} + \frac{129}{64} - 13$$

$$\begin{aligned} \text{解: 原式} &= 2\frac{1}{2} + 2\frac{1}{4} + 2\frac{1}{8} + 2\frac{1}{16} + 2\frac{1}{32} + 2\frac{1}{64} - 13 \\ &= \left(\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \frac{1}{32} + \frac{1}{64}\right) - 1 \\ &= -\frac{1}{64} \end{aligned}$$

$$65. 42 \times \left(-\frac{2}{3}\right) + \left(-\frac{3}{4}\right) \div (-0.25) \qquad 66. -8 - \left[-7 + \left(1 - \frac{2}{3} \times 0.6\right) \div (-3)\right]$$

$$\begin{aligned} \text{解: 原式} &= -27 \times \left(-\frac{4}{9}\right) \times \frac{4}{9} + 4 - 4 \times \left(-\frac{1}{3}\right) \\ &= 3 \times 4 \times \frac{4}{9} + 4 + \frac{4}{3} \\ &= \frac{32}{3} \end{aligned}$$

$$\begin{aligned} \text{解: 原式} &= -8 + 7 - (1 - 0.4) \div (-3) \\ &= -1 + 0.2 \\ &= -0.8 \end{aligned}$$

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

$$\begin{aligned} \text{解: 原式} &= -27 \times \left(-\frac{4}{9}\right) \times \frac{4}{9} + 4 - 4 \times \left(-\frac{1}{3}\right) \\ &= 3 \times 4 \times \frac{4}{9} + 4 + \frac{4}{3} \\ &= \frac{32}{3} \end{aligned}$$

$$68. 0.75 + \left(-2\frac{3}{4}\right) + (+0.125) + \left(-12\frac{5}{7}\right) + \left(-4\frac{1}{8}\right)$$

$$\begin{aligned} \text{解: 原式} &= \frac{3}{4} - 2\frac{3}{4} + \frac{1}{8} - 12\frac{5}{7} - 4\frac{1}{8} \\ &= -2 - 4 - 12\frac{5}{7} \\ &= -\frac{131}{7} \end{aligned}$$

$$69. 56 + (-0.9) + 4.4 + (-8.1) + 1$$

$$\begin{aligned} \text{解: 原式} &= 56 + 4.4 + [-0.9 + (-8.1)] + 1 \\ &= 60.4 + (-9) + 1 \\ &= 52.4 \end{aligned}$$

$$70. (3 - 18.75) + (+6.25) + (-3.25) + 18.25$$

$$\begin{aligned} \text{解: 原式} &= 3 - 18.75 + 6.25 - 3.25 + 18.25 \\ &= 3 + 3 + (18.25 - 18.75) \\ &= 6 - 0.5 \\ &= 5.5 \end{aligned}$$

$$71. -3\frac{1}{3} + (+6\frac{1}{2}) + (-2\frac{1}{4})$$

$$\begin{aligned} \text{解: 原式} &= +3\frac{1}{6} + (-2\frac{1}{4}) \\ &= \frac{11}{12} \end{aligned}$$

$$72. (-3\frac{2}{3}) - (-2\frac{3}{4}) - (-1\frac{2}{3}) - (+1.75)$$

$$\begin{aligned} \text{解: 原式} &= -3\frac{2}{3} + 2\frac{3}{4} + 1\frac{2}{3} + (-1\frac{3}{4}) \\ &= -2 + 1 \\ &= -1 \end{aligned}$$

$$73. (-1\frac{1}{2}) + \left| (-4\frac{1}{4}) - (-2\frac{1}{3}) \right|$$

$$\begin{aligned} \text{解: 原式} &= -1\frac{1}{2} + \left| -4\frac{1}{4} + 2\frac{1}{3} \right| \\ &= -1\frac{1}{2} + 1\frac{11}{12} \\ &= \frac{5}{12} \end{aligned}$$

$$74. (-4\frac{7}{8}) - (-5\frac{1}{2}) + (-4\frac{1}{4}) - (+3\frac{1}{8})$$

$$\begin{aligned} \text{解: 原式} &= (-4\frac{7}{8}) + 5\frac{1}{2} + (-4\frac{1}{4}) - 3\frac{1}{8} \\ &= \frac{5}{8} - 7\frac{3}{8} \\ &= -\frac{27}{4} \end{aligned}$$

$$75. 3.75 - \left[(-\frac{3}{8}) - (-\frac{5}{6}) + (-\frac{1}{2}) + 4\frac{2}{3} \right] - 0.125$$

$$\begin{aligned} \text{解原式} &= 3\frac{3}{4} - \left(-\frac{3}{8} + \frac{5}{6} - \frac{1}{2} + 4\frac{2}{3} \right) - \frac{1}{8} \\ &= 3\frac{3}{4} - \left(-\frac{7}{8} + 5\frac{1}{2} \right) - \frac{1}{8} \\ &= 3\frac{3}{4} + \frac{7}{8} - 5\frac{1}{2} - \frac{1}{8} \\ &= 4\frac{1}{2} - 5\frac{1}{2} \\ &= -1 \end{aligned}$$

$$76. 1 - \left[(-1) - (-\frac{3}{7}) - (+5) - (-\frac{4}{7}) \right] + |-4|$$

$$\begin{aligned} \text{解原式} &= 1 - \left(-1 + \frac{3}{7} - 5 + \frac{4}{7} \right) + 4 \\ &= 1 - (-5) + 4 \\ &= 10 \end{aligned}$$

$$77. (-7\frac{2}{3}) \times (+1\frac{3}{4}) \div (-3\frac{5}{6})$$

$$\begin{aligned} \text{解原式} &= -\frac{23}{3} \times \frac{7}{4} \times \left(-\frac{6}{23} \right) \\ &= \frac{7}{2} \end{aligned}$$

$$78. -4.035 \times 12 + 7.535 \times 12 - 36 \times \left(\frac{7}{9} - \frac{5}{6} + \frac{7}{18} \right)$$

$$\begin{aligned} \text{解原式} &= 12 \times (-4.035 + 7.535) - 36 \times \left(\frac{14 - 15 + 7}{18} \right) \\ &= 12 \times 3.5 - 36 \times \frac{1}{3} \\ &= 30 \end{aligned}$$

$$79. (-2)^3 + 3 \times (-1)^2 - (-1)^4$$

$$\begin{aligned} \text{解原式} &= -8 + 3 - 1 \\ &= -6 \end{aligned}$$

$$80. -1^{1998} - (1 - 0.5) \times \frac{1}{3} \times [3 - (-3)^2]$$

$$\begin{aligned} \text{解原式} &= -1 - \frac{1}{2} \times \frac{1}{3} \times (3 - 9) \\ &= -1 - (-1) \\ &= 0 \end{aligned}$$

$$81. \frac{2}{5} \div (-2\frac{2}{5}) - \frac{8}{21} \times (-1\frac{3}{4}) - 0.5 \div 2 \times \frac{1}{2}$$

$$\begin{aligned} \text{解原式} &= \frac{2}{5} \div (-\frac{12}{5}) - \frac{8}{21} \times (-\frac{7}{4}) - \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \\ &= \frac{2}{5} \times (-\frac{5}{12}) - (-\frac{2}{3}) - \frac{1}{8} \\ &= -\frac{1}{6} + \frac{2}{3} - \frac{1}{8} \\ &= \frac{3}{8} \end{aligned}$$

$$82. [\frac{1}{16} - (-\frac{3}{4})^3] \times (-2)^4 \div (-10 - \frac{3}{4} - 0.5)$$

$$\begin{aligned} \text{解原式} &= [\frac{1}{16} - (-\frac{27}{64})] \times 16 \div (-10 - \frac{3}{4} - \frac{1}{2}) \\ &= \frac{31}{64} \times 16 \div (-\frac{45}{4}) \\ &= \frac{31}{4} \times (-\frac{4}{45}) \\ &= -\frac{31}{45} \end{aligned}$$

$$83. (\frac{13}{81} - \frac{47}{63}) \times [0.25^3 + (-\frac{1}{4})^3] - (5\frac{1}{2} - 1\frac{1}{4} - 4\frac{1}{4}) \div [(0.45)^2 + (2\frac{3}{2001})^3]$$

$$\begin{aligned} \text{解原式} &= (\frac{13}{81} - \frac{47}{63}) \times [(\frac{1}{4})^3 + (-\frac{1}{4})^3] - (5\frac{1}{2} - 1\frac{1}{4} - 4\frac{1}{4}) \div [(0.45)^2 + (2\frac{3}{2001})^3] \\ &= (\frac{13}{81} - \frac{47}{63}) \times 0 - 0 \div [(0.45)^2 + (2\frac{3}{2001})^3] \\ &= 0 \end{aligned}$$

$$84. 0.7 \times 1\frac{2}{11} - 6.6 \times \frac{3}{7} - 2.2 \div \frac{7}{3} + 0.7 \times \frac{9}{11} + 3.3 \div \frac{7}{8}$$

$$\begin{aligned}\text{解原式} &= 0.7 \times \frac{13}{11} - 6.6 \times \frac{3}{7} - 2.2 \times \frac{3}{7} + 0.7 \times \frac{9}{11} + 3.3 \times \frac{8}{7} \\ &= 0.7 \times \left(\frac{13}{11} + \frac{9}{11}\right) + (-6.6 - 2.2) \times \frac{3}{7} + 3.3 \times \frac{8}{7} \\ &= 0.7 \times 2 - 8.8 \times \frac{3}{7} + 8.8 \times \frac{3}{7} \\ &= 1.4\end{aligned}$$

$$85. -2^2 + (-2)^2 - |3.14 - \pi| - \frac{\pi}{(-1)^3} - |-3.14|$$

$$\begin{aligned}\text{解原式} &= -4 + 4 - |3.14 - \pi| - \frac{\pi}{(-1)} - 3.14 \\ &= 0 - (\pi - 3.14) + \pi - 3.14 \\ &= 0 - \pi + 3.14 + \pi - 3.14 \\ &= 0\end{aligned}$$

$$86. 5 - 3 \times 4 \times [-3 \times (-2)^2 - (-4) \div (-1)^3]$$

$$\begin{aligned}\text{解原式} &= 5 - 12 \times [-3 \times 4 - (-4) \div (-1)] \\ &= 5 - 12 \times (-12 - 4) \\ &= 5 - 12 \times (-16) \\ &= 197\end{aligned}$$

$$87. \frac{1}{4} + \frac{1}{28} + \frac{1}{70} + \frac{1}{130} + \frac{1}{208}$$

$$\begin{aligned}\text{解: 原式} &= \frac{1}{1 \times 4} + \frac{1}{4 \times 7} + \frac{1}{7 \times 10} + \frac{1}{10 \times 13} + \frac{1}{13 \times 16} \\ &= \frac{1}{3} \times \left(\frac{1}{1} - \frac{1}{4} + \frac{1}{4} - \frac{1}{7} + \frac{1}{7} - \frac{1}{10} + \frac{1}{10} - \frac{1}{13} + \frac{1}{13} - \frac{1}{16}\right) \\ &= \frac{1}{3} \times \left(1 - \frac{1}{16}\right) \\ &= \frac{5}{16}\end{aligned}$$

$$88. 2007\frac{1}{2} - 2006\frac{1}{3} + 2005\frac{1}{2} - 2004\frac{1}{3} + \dots + 1\frac{1}{2} - \frac{1}{3}$$

$$\begin{aligned} \text{解原式} &= (2007 + \frac{1}{2}) - (2006 + \frac{1}{3}) + (2005 + \frac{1}{2}) - (2004 + \frac{1}{3}) + \dots + (1 + \frac{1}{2}) - \frac{1}{3} \\ &= 2007 - 2006 + 2005 - 2004 + \dots + 1 - 0 + \frac{1}{2} - \frac{1}{3} + \dots + \frac{1}{2} - \frac{1}{3} \\ &= 1004 + (\frac{1}{2} - \frac{1}{3}) \times 1004 \\ &= \frac{7}{6} \times 1004 \\ &= \frac{3514}{3} \end{aligned}$$



$$89. (-1\frac{1}{2}) \times (-1\frac{1}{3}) \times (-1\frac{1}{4}) \times \dots \times (-1\frac{1}{2006})$$

$$\begin{aligned} \text{解原式} &= (-\frac{3}{2}) \times (-\frac{4}{3}) \times (-\frac{5}{4}) \times \dots \times (-\frac{2007}{2006}) \\ &= -\frac{3}{2} \times \frac{4}{3} \times \frac{5}{4} \times \dots \times \frac{2007}{2006} \\ &= -\frac{2007}{2} \end{aligned}$$

$$90. 0.125 + 3\frac{1}{4} + (-3\frac{1}{8}) + 11\frac{2}{3} + (-0.25)$$

$$\begin{aligned} \text{解原式} &= \frac{1}{8} + 3 + \frac{1}{4} - 3 - \frac{1}{8} + 11\frac{2}{3} + (-\frac{1}{4}) \\ &= 11\frac{2}{3} \end{aligned}$$

$$91. (-13.6) + 0.26 + (-2.7) + (-1.06)$$

$$\begin{aligned} \text{解原式} &= (-13.6) + (-2.7) + 0.26 + (-1.06) \\ &= -16.3 + (-0.8) \\ &= -17.1 \end{aligned}$$

$$92. (-\frac{2}{3}) - (+\frac{1}{2}) - (-\frac{5}{6}) - (+\frac{1}{3}) - (+1\frac{1}{2})$$

$$\begin{aligned} \text{解原式} &= (-\frac{2}{3}) + (-\frac{1}{2}) + \frac{5}{6} + (-\frac{1}{3}) + (-1\frac{1}{2}) \\ &= (-\frac{1}{3}) + (-\frac{1}{3}) + (-1\frac{1}{2}) \\ &= -\frac{13}{6} \end{aligned}$$

$$93. \frac{191919}{767676} - \frac{7676}{1919}$$

$$\begin{aligned} \text{解原式} &= \frac{1}{4} - 4 \\ &= -\frac{15}{4} \end{aligned}$$

$$94. 10\frac{1}{3} + (-11.5) + 5\frac{1}{3} - (+4.5)$$

$$\begin{aligned} \text{解原式} &= 10 + \frac{1}{3} - 11 - \frac{1}{2} + 5 + \frac{1}{3} - 4 - \frac{1}{2} \\ &= \frac{2}{3} - 1 \\ &= -\frac{1}{3} \end{aligned}$$

$$95. 2^2 + |5 - 8| + 24 \times (-3 + 2)$$

$$\begin{aligned} \text{解原式} &= 4 + |-3| + 24 \times (-1) \\ &= 4 + 3 + (-24) \\ &= -17 \end{aligned}$$

$$96. -2\frac{1}{2} \div \frac{3}{4} \times (-0.8) \times 1\frac{3}{4} \div 1.4 \times (-0.2)$$

$$\begin{aligned} \text{解原式} &= -\frac{5}{2} \times \frac{4}{3} \times (-\frac{4}{5}) \times \frac{7}{4} \times \frac{5}{7} \times (-0.2) \\ &= -\frac{2}{3} \end{aligned}$$

$$97. -|-2\frac{3}{4}| \div (\frac{3}{8})^3 \times |2\frac{3}{4} - 5.75|$$

$$\begin{aligned} \text{解原式} &= -\frac{11}{4} \div (\frac{3}{8})^3 \times 3 \\ &= -\frac{11}{4} \times \frac{8}{3} \times \frac{8}{3} \times \frac{8}{3} \times 3 \\ &= -\frac{1408}{9} \end{aligned}$$

$$98. |\frac{1}{2018} - \frac{1}{2017}| + |\frac{1}{2017} - \frac{1}{2016}| + \dots + |\frac{1}{2} - 1|$$

$$\begin{aligned} \text{解原式} &= -(\frac{1}{2018} - \frac{1}{2017}) + [-(\frac{1}{2017} - \frac{1}{2016})] + \dots + [-(\frac{1}{2} - 1)] \\ &= -\frac{1}{2018} + \frac{1}{2017} + (-\frac{1}{2017}) + \frac{1}{2016} + \dots + (-\frac{1}{2}) + 1 \\ &= -\frac{1}{2018} + 1 \\ &= \frac{2017}{2018} \end{aligned}$$

99. 阅读下列材料，回答下列问题

$$1 \times 2 = \frac{1}{3} \times (1 \times 2 \times 3 - 0 \times 1 \times 2) ;$$

$$2 \times 3 = \frac{1}{3} \times (2 \times 3 \times 4 - 1 \times 2 \times 3) ;$$

$$3 \times 4 = \frac{1}{3} \times (3 \times 4 \times 5 - 2 \times 3 \times 4) ;$$

把以上三个式子相加得到：

$$1 \times 2 + 2 \times 3 + 3 \times 4 = \frac{1}{3} \times 3 \times 4 \times 5 = 20$$

观察上面的式子你发现了什么？用你发现的规律计算：

(1) $1 \times 2 + 2 \times 3 + 3 \times 4 + \dots + 99 \times 100$

(2) $1^2 + 2^2 + 3^2 + \dots + 99^2$

解：(1) $1 \times 2 + 2 \times 3 + 3 \times 4 + \dots + 99 \times 100$

$$= \frac{1}{3} \times (1 \times 2 \times 3 - 0 \times 1 \times 2) + \frac{1}{3} \times (2 \times 3 \times 4 - 1 \times 2 \times 3) + \dots + \frac{1}{3} \times (99 \times 100 \times 101 - 98 \times 99 \times 100)$$

$$= \frac{1}{3} \times (1 \times 2 \times 3 + 2 \times 3 \times 4 - 1 \times 2 \times 3 + \dots + 99 \times 100 \times 101 - 98 \times 99 \times 100)$$

$$= \frac{1}{3} \times 99 \times 100 \times 101$$

$$= 333300$$

(2) 原式 $= 1 \times 2 - 1 + 2 \times 3 - 2 + 3 \times 4 - 3 + \dots + 99 \times 100 - 99$

$$= 1 \times 2 + 2 \times 3 + 3 \times 4 + \dots + 99 \times 100 - (1 + 2 + 3 + \dots + 99)$$

$$= 333300 - \frac{1+99}{2} \times 99$$

$$= 328350$$

100. 阅读下列材料，回答下列问题

$$1^3 = \frac{1}{4} \times 1^2 \times 2^2 ; 1^3 + 2^3 = \frac{1}{4} \times 2^2 \times 3^2 ;$$

$$1^3 + 2^3 + 3^3 = \frac{1}{4} \times 3^2 \times 4^2 ;$$

$$1^3 + 2^3 + 3^3 + 4^3 = \frac{1}{4} \times 4^2 \times 5^2 ;$$

请你猜想：

(1) $1^3 + 2^3 + 3^3 + \dots + 10^3 =$

(2) $1^3 + 2^3 + 3^3 + \dots + n^3 =$ (用含 n 的式子表示)

解：(1) $\frac{1}{4} \times 10^2 \times 11^2 = 3025$

(2) $\frac{1}{4} \times n^2 \times (n+1)^2$