

第三讲 有理数的混合运算（练习）

一、有理数的加减混合运算

1. 计算：

$$(1) -5\frac{17}{37} - \left[(-9.5) + 4\frac{3}{74} \right] + 7.5.$$

$$(2) -5.5 + (-3.2) - (-2.5) - (-4.8).$$

$$(3) -32 - 17 - |-23| - | -(-17) |.$$

2. 计算．

$$(1) (-53) + (+21) - (-69) - (+37)$$

$$(2) 5.7 - 4.2 - 8.4 - 2.3 + 1\frac{1}{5}$$

$$(3) -(-12) + (+18) - (+37) + (-41)$$

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

3. 加减混合运算：

$$(1) 12 - (-18) + (-7) - 20.$$

$$(2) +5.7 + (-8.4) + (-4.2) - (-10).$$

$$(3) \frac{5}{6} + \left(-\frac{3}{4}\right) - (+0.25) - \left(-\frac{1}{6}\right).$$

$$(4) 5.6 + \left(-7\frac{3}{5}\right) - (-8.3) - \left(+\frac{53}{10}\right) - 1.$$

4. 计算下列各式：

$$(1) -12 + 11 - 8 + 39 .$$

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

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

$$(4) \left(-18\frac{4}{5}\right) + \left(53\frac{3}{5}\right) + (-53.6) + \left(+18\frac{4}{5}\right) + (-100) .$$

5. 计算：

$$(1) -20 + (-15) - (-28) - 17 .$$

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

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

$$(4) -4 + 5\frac{1}{6} + (-2.5) - 1\frac{1}{3} .$$

6. 计算．

$$(1) (-8) + (-1.2) + (-0.6) + (-2.4) .$$

$$(2) (-12) - \left(-\frac{6}{5}\right) + (-8) - \frac{7}{10} .$$

$$(3) 3 - (+63) - (-259) - (-41) .$$

$$(4) 2\frac{1}{3} - \left(+10\frac{1}{3}\right) + \left(-8\frac{1}{5}\right) - \left(+3\frac{2}{5}\right) .$$

7. 计算下列各题 .

(1) $6 + (-14) - (-39)$.

(2) $-7 - (-11) + (-9) - (+2)$.

(3) $20.36 + (-1.4) + (-13.36) + 1.4$.

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

8. 计算题 .

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

(2) $(-12) - 5 + (-14) - (-39)$.

(3) $-3.76 - 2\frac{3}{7} - 7.24 - 3\frac{4}{7}$.

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

9. 计算 :

(1) $1\frac{1}{3} - 1\frac{1}{5} + \frac{5}{3} - (-0.6) - \left(-3\frac{3}{5}\right)$.

(2) $\frac{2}{5} - \left|-1\frac{1}{2}\right| - \left(+2\frac{1}{4}\right) - (-2.75)$.

(3) $1.125 - 3\frac{3}{4} - \frac{1}{8} - 0.25$.

(4) $2\frac{2}{10} + 6.3 - \left(\frac{3}{5} - 1\frac{3}{5}\right)$.

10. 计算 .

$$(1) (-7) + (+10) + (-4) + (+7)$$

$$(2) (-3.125) + (+4.75) + \left(-9\frac{7}{8}\right) + \left(+5\frac{1}{4}\right)$$

$$(3) \left(-9\frac{1}{3}\right) + \left(-\left|-4\frac{5}{6}\right|\right) + \left|-5\frac{1}{6}\right| + \left(-\frac{2}{3}\right)$$

$$(4) 0 + 3.2 + \left(-\frac{2}{5}\right) + |-24| - \left[3.2 - \left(60 + 8\frac{3}{5}\right)\right]$$

二、有理数的乘除混合运算

11. 计算： $(-9) \times \frac{1}{9} \times (-1) \div \left(-\frac{1}{9}\right) \times (-9)$.

12. 计算 .

$$(1) (-5) \times 6 \times \left(-\frac{4}{5}\right) \div (-4)$$

$$(2) \left(-\frac{7}{2}\right) \times \left(\frac{1}{6} - \frac{1}{2}\right) \times \frac{3}{14} \div \left(-\frac{1}{2}\right)$$

13. 计算 .

$$(1) -4\frac{1}{4} \div 2\frac{1}{8} \times (-9)$$

$$(2) |-0.25| \div \left(-\frac{2}{3}\right) \times \left|-1\frac{3}{5}\right|$$

14. 计算：

$$(1) (-3) \times \left(-1\frac{4}{5}\right) \times \left(-1\frac{1}{9}\right) \times \left(+5\frac{1}{2}\right) \times \frac{3}{11}$$

$$(2) (-2) \div \left(-1\frac{6}{7}\right) \times 0.5 \times \left(-3\frac{1}{4}\right) \div 7$$

15. 计算：

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

$$(2) (-2.25) \div \left(-1\frac{1}{2}\right) \div \left(-1\frac{1}{8}\right).$$

16. 乘除混合运算．

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

$$(2) -\frac{1}{0.2} \div \left|-\frac{1}{4}\right| \times (+3) \div \left(-\frac{1}{2.5}\right).$$

17. 计算．

$$(1) \left(-2\frac{1}{3}\right) \div (-7) \times 4.2.$$

$$(2) (-8) \div \left(-4\frac{1}{2}\right) \div \left(-2\frac{2}{3}\right).$$

$$(3) \left(-\frac{3}{2}\right) \div 2 \times \frac{1}{2} \div \left(-\frac{9}{16}\right).$$

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

18. 计算：

$$(1) 6 \div (-5) \times \left(-\frac{1}{5}\right).$$

$$(2) (-27) \div 2\frac{1}{4} \times \frac{4}{9} \div (-24).$$

$$(3) -12 \times \frac{5}{3} \div \frac{5}{3}.$$

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

19. 计算 .

$$(1) \left(-\frac{8}{25}\right) \times 1.25 \times (-8) .$$

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

$$(3) \frac{7}{6} \times \left(\frac{1}{6} - \frac{1}{3}\right) \times \frac{3}{14} \div \frac{3}{5} .$$

$$(4) \left(-1 - \frac{1}{2}\right) \cdot \left(-1 - \frac{1}{3}\right) \cdot \left(-1 - \frac{1}{4}\right) \cdots \left(-1 - \frac{1}{50}\right) .$$

20. 计算 :

$$(1) -1 \div \left(-\frac{4}{9}\right) \times \left(-\frac{9}{4}\right) .$$

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

$$(3) (-81) \div 2\frac{1}{4} \times \frac{4}{9} \div (-16) .$$

$$(4) (-2) \div \left(-1\frac{6}{7}\right) \times 0.5 \times \left(-3\frac{1}{4}\right) \div 7 .$$

三、有理数的加减、乘除、乘方混合运算

21. 计算 .

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

$$(2) (-10)^3 + [(-4)^2 - (1 - 3^2) \times 2] .$$

22. 计算 .

$$(1) -(-1)^{1000} - 2.45 \times 8 + 2.55 \times (-8) .$$

$$(2) -2^2 - 5 \times \frac{1}{5} + |-3| - 25 \times 0 .$$

23. 计算 :

$$(1) 4 \times (-3)^2 - 13 \div \left(-\frac{1}{2}\right) + |-4^3| .$$

$$(2) \left|-5\frac{1}{2}\right| \times \left(\frac{1}{3} - \frac{1}{2}\right) \times 0.6 \div (-0.25) .$$

24. 计算 .

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

$$(2) \left(\frac{5}{12} + \frac{2}{3} - \frac{3}{4}\right) \times (-12) .$$

$$(3) -1^4 - (-4)^2 - |3 - 7| \div \left(-\frac{2}{3}\right) .$$

25. 计算

$$(1) 18 - 3 \times (-2) \div \left(-\frac{1}{3}\right) .$$

$$(2) 1 - 24 \times \left(-\frac{7}{6} + \frac{11}{12} - \frac{13}{24}\right) .$$

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

$$(4) -2^4 + (-3) \times |1 - (-2)^3| - (-1)^{2019} .$$

26. 计算 .

$$(1) \left(-10\frac{1}{8}\right) \div 2\frac{1}{4} \times \left(-\frac{4}{9}\right) \div (-2) .$$

$$(2) 13 \times 1\frac{2}{3} - 0.34 \times \frac{2}{7} + \frac{1}{3} \times 13 + \left(-9\frac{5}{7}\right) \times 0.34 .$$

$$(3) -1 - \left\{(-3)^3 - \left[3 + 0.4 \times \left(-1\frac{1}{2}\right)\right] \div (-2)\right\} .$$

27. 计算题 .

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

$$(2) \left(-\frac{3}{4} - \frac{5}{6} + \frac{7}{12}\right) \div \frac{1}{24} .$$

$$(3) \left(-\frac{1}{2}\right)^2 + 6\frac{1}{2} \times \frac{4}{13} - (-2)^4 \div (-16) .$$

$$(4) -14 - 14 \times \left[-2^2 + \left(-\frac{2}{3}\right)^2 \times (-3)^3\right] .$$

28. 计算 .

$$(1) (-7) \times (-5) - 90 \div (-15) + \left(-\frac{3}{4}\right) \div (-0.25) .$$

$$(2) -3^2 \times (-2) - 4 \div \left(-\frac{1}{9}\right) - (-3) \times [(-2)^3 + 2] + (-28) .$$

$$(3) \left(\frac{1}{4} + \frac{1}{6} - \frac{1}{12}\right) \times (-12) - \left(-\frac{3}{4}\right) \times 14 + \left(-\frac{3}{4}\right) \times (-10) .$$

29. 计算：

$$(1) 1\frac{1}{2} \times \frac{5}{7} - \left(-\frac{5}{7}\right) \times 2\frac{1}{2} + \left(-\frac{1}{2}\right) \times \frac{5}{7}.$$

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

$$(3) (-3)^2 \times \left[\left(-\frac{1}{3}\right) - \frac{4}{9}\right] - 6 \div \left(-\frac{2}{3}\right)^2 + \left[-\left(\frac{3}{2}\right)^2 + 1\right] \times (-2)^3.$$

30. 计算.

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

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

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

$$(4) 11.35 \times \left(-\frac{2}{3}\right)^2 + 1.05 \times \left(-\frac{2}{9}\right)^2 - 7.7 \times \left(-\frac{4}{3^2}\right).$$