

## 分小混合运算习题答案

$$1、13\frac{8}{11}-\left(3\frac{1}{4}+2\frac{5}{11}\right)-\frac{3}{4}$$

$$\begin{aligned}\text{原式}&=13\frac{8}{11}-3\frac{1}{4}-2\frac{5}{11}-\frac{3}{4} \\&=\left(13\frac{8}{11}-2\frac{5}{11}\right)-\left(3\frac{1}{4}+\frac{3}{4}\right) \\&=11\frac{3}{11}-4 \\&=7\frac{3}{11}\end{aligned}$$

$$2、\frac{4}{7}\times 54-16\times \frac{3}{5}+27\times \frac{6}{7}+\frac{1}{5}\times 3$$

$$\begin{aligned}\text{原式}&=\frac{4}{7}\times 54+54\times \frac{3}{7}-16\times \frac{3}{5}+\frac{3}{5} \\&=54\times \left(\frac{4}{7}+\frac{3}{7}\right)-\frac{3}{5}\times (16-1) \\&=54-9 \\&=45\end{aligned}$$

$$3、9\frac{8}{9}+99\frac{88}{99}+999\frac{888}{999}+9999\frac{8888}{9999}$$

$$\begin{aligned}\text{原式}&=10-\frac{1}{9}+100-\frac{11}{99}+1000-\frac{111}{999}+10000-\frac{1111}{9999} \\&=11110-\frac{1}{9}-\frac{1}{9}-\frac{1}{9}-\frac{1}{9} \\&=11109\frac{5}{9}\end{aligned}$$

$$4、155\times \frac{113}{156}$$

$$\begin{aligned}\text{原式}&=(156-1)\times \frac{113}{156} \\&=113-\frac{113}{156} \\&=112\frac{43}{156}\end{aligned}$$

$$5、124\times \frac{7}{25}+18\times \frac{24}{25}$$

$$\begin{aligned}\text{原式}&=(125-1)\times \frac{7}{25}+18\times \left(1-\frac{1}{25}\right) \\&=35-\frac{7}{25}+18-\frac{18}{25} \\&=52\end{aligned}$$

$$6、(1-\frac{11}{36}\times 3)+(3-\frac{11}{36}\times 5)+(5-\frac{11}{36}\times 7)+(7-\frac{11}{36}\times 9)+(9-\frac{11}{36}\times 11)+(11-\frac{11}{36}\times 13)$$

$$\begin{aligned}\text{原式}&=(1+3+5+7+9+11)-\frac{11}{36}\times(3+5+7+9+11+13) \\&=36-\frac{11}{36}\times 48 \\&=36-\frac{44}{3} \\&=\frac{64}{3}\end{aligned}$$

$$7、76\times(\frac{1}{23}-\frac{1}{53})+23\times(\frac{1}{53}+\frac{1}{76})-53\times(\frac{1}{23}-\frac{1}{76})$$

$$\begin{aligned}\text{原式}&=\frac{76}{23}-\frac{76}{53}+\frac{23}{53}+\frac{23}{76}-\frac{53}{23}+\frac{53}{76} \\&=\frac{76-53}{23}-\frac{76-23}{53}+\frac{23+53}{76} \\&=1-1+1 \\&=1\end{aligned}$$

$$8、\left[\left(\frac{1}{2}+\frac{1}{4}+\frac{1}{6}+\frac{1}{8}\right)-\left(\frac{1}{3}+\frac{1}{6}+\frac{1}{9}+\frac{1}{12}\right)\right]\div\left[\left(\frac{1}{4}+\frac{1}{8}+\frac{1}{12}+\frac{1}{16}\right)-\left(\frac{1}{5}+\frac{1}{10}+\frac{1}{15}+\frac{1}{20}\right)\right]$$

$$\begin{aligned}\text{原式}&=\left[\frac{1}{2}\times\left(1+\frac{1}{2}+\frac{1}{3}+\frac{1}{4}\right)-\frac{1}{3}\times\left(1+\frac{1}{2}+\frac{1}{3}+\frac{1}{4}\right)\right]\div\left[\frac{1}{4}\times\left(1+\frac{1}{2}+\frac{1}{3}+\frac{1}{4}\right)-\frac{1}{5}\times\left(1+\frac{1}{2}+\frac{1}{3}+\frac{1}{4}\right)\right] \\&=\frac{1}{6}\times\left(1+\frac{1}{2}+\frac{1}{3}+\frac{1}{4}\right)\div\frac{1}{20}\times\left(1+\frac{1}{2}+\frac{1}{3}+\frac{1}{4}\right) \\&=\frac{10}{3}\end{aligned}$$

$$9、\left(\frac{1}{2}+\frac{1}{3}+\cdots+\frac{1}{10}\right)+\left(\frac{2}{3}+\frac{2}{4}+\cdots+\frac{2}{10}\right)+\left(\frac{3}{4}+\frac{3}{5}+\cdots+\frac{3}{10}\right)+\cdots+\left(\frac{8}{9}+\frac{8}{10}\right)+\frac{9}{10}$$

$$\begin{aligned}\text{原式}&=\frac{1}{2}+\left(\frac{1}{3}+\frac{2}{3}\right)+\left(\frac{1}{4}+\frac{2}{4}+\frac{3}{4}\right)+\cdots+\left(\frac{1}{10}+\frac{2}{10}+\cdots+\frac{9}{10}\right) \\&=\frac{1}{2}+\frac{\frac{2\times 3}{2}}{3}+\frac{\frac{3\times 4}{2}}{4}+\cdots+\frac{\frac{9\times 10}{2}}{10} \\&=\frac{1}{2}+\frac{2}{2}+\frac{3}{2}+\cdots+\frac{9}{2} \\&=\frac{45}{2}\end{aligned}$$

$$10、\left(\frac{2+3+4}{1}-\frac{3+4+5}{2}+\frac{4+5+6}{3}-\frac{5+6+7}{4}+\cdots+\frac{10+11+12}{9}-\frac{11+12+13}{10}\right)\div\left(1-\frac{1}{2}+\frac{1}{3}-\frac{1}{4}+\cdots+\frac{1}{9}-\frac{1}{10}\right)$$

$$\begin{aligned}\text{原式}&=\left(3\frac{6}{1}-3\frac{6}{2}+3\frac{6}{3}-3\frac{6}{4}+\cdots+3\frac{6}{9}-3\frac{6}{10}\right)\div\left(1-\frac{1}{2}+\frac{1}{3}-\frac{1}{4}+\cdots+\frac{1}{9}-\frac{1}{10}\right) \\&=6\end{aligned}$$