

中学入試用計算問題集(第55回)

試験時間 7分

()年()月()日

① $(0.1 + 0.01 \div 0.001) \times 0.1 - 0.001 \div 0.01 = (\quad)$

② $(\frac{14}{45} \div 1.4 - \frac{2}{15}) \times 1.25 + \frac{3}{7} = (\quad)$

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

中学入試用計算問題集(第56回)

試験時間 7分

()年()月()日

① $2000 \times 0.0003 \div 0.25 \times 0.5 = (\quad)$

② $19 - 19.5 \div \left\{ \left(1\frac{7}{8} - \frac{5}{3} \right) \times 24 - 2\frac{5}{6} \right\} = (\quad)$

③ $\{ 16 - 2 \times \left(\frac{5}{9} + 7\frac{1}{3} \right) \} \times \square + 2\frac{2}{3} = 3\frac{7}{9} \quad \square = (\quad)$

中学入試用計算問題集(第57回)

試験時間 7分

()年()月()日

① $(\frac{1}{12} + 1\frac{2}{3} + 2\frac{5}{6}) - (\frac{1}{3} + 2\frac{3}{4} + 1\frac{1}{5}) = (\quad)$

② $1\frac{1}{2} \div \frac{1}{6} \times \square - 2 \times \frac{3}{5} = 1\frac{4}{5} \quad \square = (\quad)$

③ $\frac{53}{16}$ 時間 = ()時間()分()秒

中学入試用計算問題集(第58回)

試験時間 7分

()年()月()日

① $100 \times 1000 \div (0.01 \div 0.001) = (\quad)$

② $2\frac{3}{4} + (1\frac{1}{4} - \frac{5}{6}) \div 1\frac{2}{3} = (\quad)$

③ $23.056 \div 0.37 = (\quad)$ あまり (\quad)
(商は小数第1位まで)

中学入試用計算問題集(第59回)

試験時間 7分

()年()月()日

① $6.3 \div 0.7 - 10.4 \times 0.5 \times 0.25 + 7.8 \div 1.3 = (\quad)$

② $4\frac{1}{3} \div \square + 1\frac{1}{8} \times \frac{2}{9} = 1$ $\square = (\quad)$

③ $\frac{1}{3} - \left\{ \frac{1}{3} - \left(0.6 - \frac{3}{16} \right) \div \quad \right\} \times 1\frac{4}{11} = \frac{1}{12}$ $= (\quad)$

中学入試用計算問題集(第60回)

試験時間 7分

()年()月()日

① $152 - (28 + 42 \div 7) \times 2 + 16 = (\quad)$

② $\{ 3\frac{1}{2} - (1.8 - \quad) \} \div 0.12 = 25 \quad = (\quad)$

③ $9.991 \div 0.97 - 9.951 \div (2.1 \times 0.7 - 0.4) + 2.991 \div 99.7 = (\quad)$

中学入試用計算問題集(第55回) 解答と解き方

【解答】

$$\boxed{1} \quad 0.91 \quad \left(\frac{91}{100}\right) \quad \boxed{2} \quad \frac{34}{63} \quad \boxed{3} \quad 4\frac{1}{2} \quad (4.5)$$

【解き方】

$$\begin{aligned} \boxed{1} \quad & (0.1 + \underbrace{0.01 \div 0.001}) \times 0.1 - \underbrace{0.001 \div 0.01} \\ & = (0.1 + 10) \times 0.1 - 0.1 \\ & = 10.1 \times 0.1 - 0.1 \\ & = 1.01 - 0.1 \\ & = 0.91 \end{aligned}$$

$$\begin{aligned} \boxed{2} \quad & \frac{14}{45} \div 1.4 = \frac{14}{45} \div 1\frac{2}{5} = \frac{14}{45} \div \frac{7}{5} = \frac{14 \times 5}{45 \times 7} = \frac{14 \times \overset{2}{\cancel{5}} \times \overset{1}{5}}{\overset{9}{\cancel{45}} \times \overset{1}{7}} = \frac{2}{9} \\ & \frac{2}{9} - \frac{2}{15} = \frac{10}{45} - \frac{6}{45} = \frac{4}{45} \\ & \frac{4}{45} \times 1.25 = \frac{4}{45} \times 1\frac{1}{4} = \frac{4}{45} \times \frac{5}{4} = \frac{4 \times 5}{45 \times 4} = \frac{\overset{1}{\cancel{4}} \times \overset{1}{5}}{\overset{9}{\cancel{45}} \times \overset{1}{4}} = \frac{1}{9} \\ & \frac{1}{9} + \frac{3}{7} = \frac{7}{63} + \frac{27}{63} = \frac{34}{63} \end{aligned}$$

$$\boxed{3} \quad 2\frac{1}{4} \times \frac{2}{3} = \frac{9}{4} \times \frac{2}{3} = \frac{9 \times 2}{4 \times 3} = \frac{\overset{3}{\cancel{9}} \times \overset{1}{2}}{\overset{2}{\cancel{4}} \times \overset{1}{3}} = \frac{3}{2}$$

$$3\frac{1}{2} \div 2\frac{4}{5} = \frac{7}{2} \div \frac{14}{5} = \frac{7 \times 5}{2 \times 14} = \frac{\overset{1}{\cancel{7}} \times 5}{2 \times \overset{2}{\cancel{14}}} = \frac{5}{4}$$

$$4\frac{3}{4} - \frac{3}{2} + \frac{5}{4} = \frac{19}{4} - \frac{6}{4} + \frac{5}{4} = \frac{18}{4} = \frac{9}{2} = 4\frac{1}{2}$$

中学入試用計算問題集(第56回) 解答と解き方

【解答】

① 1.2 ($1\frac{1}{5}$) ② 10 ③ 5

【解き方】

① $2.000 \times 0.0003 \div 0.25 \times 0.5$
 $= 0.6 \div 0.25 \times 0.5$
 $= 2.4 \times 0.5$
 $= 1.2$

② $1\frac{7}{8} - \frac{5}{3} = 1\frac{7}{8} - 1\frac{2}{3} = 1\frac{21}{24} - 1\frac{16}{24} = \frac{5}{24}$
 $\frac{5}{24} \times 24 = \frac{5 \times 24}{24} = \frac{5 \times \cancel{24}^1}{\cancel{24}_1} = 5$

$$5 - 2\frac{5}{6} = 4\frac{6}{6} - 2\frac{5}{6} = 2\frac{1}{6}$$

$$19.5 \div 2\frac{1}{6} = 19\frac{1}{2} \div 2\frac{1}{6} = \frac{39}{2} \div \frac{13}{6} = \frac{39}{2} \times \frac{6}{13} = \frac{\cancel{39}^3 \times \cancel{6}^3}{\cancel{13}_1 \times \cancel{2}_1} = 9$$

$$19 - 9 = 10$$

③ $\frac{5}{9} + 7\frac{1}{3} = \frac{5}{9} + 7\frac{3}{9} = 7\frac{8}{9}$
 $2 \times 7\frac{8}{9} = 2 \times \frac{71}{9} = \frac{2 \times 71}{9} = \frac{142}{9}$
 $16 - \frac{142}{9} = \frac{144}{9} - \frac{142}{9} = \frac{2}{9}$

よって、この問題は、 $\frac{2}{9} \times \square + 2\frac{2}{3} = 3\frac{7}{9}$ となる。

$$3\frac{7}{9} - 2\frac{2}{3} = 3\frac{7}{9} - 2\frac{6}{9} = 1\frac{1}{9} = \frac{10}{9}$$

$$\frac{10}{9} \div \frac{2}{9} = \frac{10 \times 9}{9 \times 2} = \frac{\cancel{10}^5 \times \cancel{9}^1}{\cancel{9}_1 \times \cancel{2}_1} = 5$$

中学入試用計算問題集(第57回) 解答と解き方

【解答】

① $\frac{3}{10}$ (0.3) ② $\frac{1}{3}$ ③ 3, 18, 45

【解き方】

$$\begin{aligned} \text{①} \quad & \frac{1}{12} + 1\frac{2}{3} + 2\frac{5}{6} = \frac{1}{12} + 1\frac{8}{12} + 2\frac{10}{12} = 3\frac{19}{12} = 4\frac{7}{12} \\ & \frac{1}{3} + 2\frac{3}{4} + 1\frac{1}{5} = \frac{20}{60} + 2\frac{45}{60} + 1\frac{12}{60} = 3\frac{77}{60} = 4\frac{17}{60} \\ & 4\frac{7}{12} - 4\frac{17}{60} = 4\frac{35}{60} - 4\frac{17}{60} = \frac{18}{60} = \frac{3}{10} \end{aligned}$$

$$\begin{aligned} \text{②} \quad & 1\frac{1}{2} \div \frac{1}{6} = \frac{3}{2} \div \frac{1}{6} = \frac{3 \times 6}{2 \times 1} = \frac{3 \times \cancel{6}^3}{2 \times 1} = 9 \\ & 2 \times \frac{3}{5} = \frac{2 \times 3}{5} = \frac{6}{5} \end{aligned}$$

よってこの問題は, $9 \times \square - \frac{6}{5} = 1\frac{4}{5}$ となる。

$$1\frac{4}{5} + \frac{6}{5} = 1\frac{10}{5} = 3$$

$$3 \div 9 = \frac{3}{9} = \frac{1}{3}$$

③ $\frac{53}{16}$ 時間 = $3\frac{5}{16}$ 時間。1時間 = 60分だから,

$$\frac{5}{16}\text{時間} = \left(\frac{5}{16} \times 60\right)\text{分} = \frac{5 \times 60}{16}\text{分} = \frac{5 \times \cancel{60}^{15}}{4}\text{分} = \frac{75}{4}\text{分} = 18\frac{3}{4}\text{分}$$

$$1\text{分} = 60\text{秒だから}, \frac{3}{4}\text{分} = \left(\frac{3}{4} \times 60\right)\text{秒} = \frac{3 \times 60}{4}\text{秒} = \frac{3 \times \cancel{60}^{15}}{4}\text{秒} = 45\text{秒}$$

よって, $\frac{53}{16}$ 時間 = $3\frac{5}{16}$ 時間 = 3時間 $18\frac{3}{4}$ 分 = 3時間 18分 45秒

中学入試用計算問題集(第58回) 解答と解き方

【解答】

① 10000

② 3

③ 62.3 あまり 0.005

【解き方】

$$\begin{aligned} \text{① } & 100 \times 1000 \div (0.01 \div 0.001) \\ & = 100 \times 1000 \div 10 \\ & = 100000 \div 10 \\ & = 10000 \end{aligned}$$

② たし算よりもわり算を先に計算することを忘れないように。

$$1\frac{1}{4} - \frac{5}{6} = 1\frac{3}{12} - \frac{10}{12} = \frac{15}{12} - \frac{10}{12} = \frac{5}{12}$$

$$\frac{5}{12} \div 1\frac{2}{3} = \frac{5}{12} \div \frac{5}{3} = \frac{5 \times 3}{12 \times 5} = \frac{\overset{1}{\cancel{5}} \times \overset{1}{\cancel{3}}}{\underset{4}{\cancel{12}} \times \underset{1}{\cancel{5}}} = \frac{1}{4}$$

$$2\frac{3}{4} + \frac{1}{4} = 2\frac{4}{4} = 3$$

③

$$\begin{array}{r} 0 \times 37 \overline{) 23 \times 05.6} \\ \underline{22} \\ 1 \\ \underline{11} \\ 11 \\ \underline{11} \\ 005 \end{array}$$

中学入試用計算問題集(第59回) 解答と解き方

【解答】

① 13.7 ($13\frac{7}{10}$) ② $5\frac{7}{9}$ ③ $2\frac{3}{4}$ (2.75)

【解き方】

① $6.3 \div 0.7 - 10.4 \times 0.5 \times 0.25 + 7.8 \div 1.3 = (\quad)$
 $= 9 - 1.3 + 6$
 $= 13.7$

② $4\frac{1}{3} \div \square + 1\frac{1}{8} \times \frac{2}{9} = 1$
 $1\frac{1}{8} \times \frac{2}{9} = \frac{9}{8} \times \frac{2}{9} = \frac{9 \times 2}{8 \times 9} = \frac{1 \cancel{9} \times 2}{8 \times \cancel{9}} = \frac{1}{4}$

$$1 - \frac{1}{4} = \frac{3}{4}$$

$$4\frac{1}{3} \div \frac{3}{4} = \frac{13}{3} \div \frac{3}{4} = \frac{13 \times 4}{3 \times 3} = \frac{52}{9} = 5\frac{7}{9}$$

③ $\frac{1}{3} - \left\{ \frac{1}{3} - \left(0.6 - \frac{3}{16} \right) \div \quad \right\} \times 1\frac{4}{11} = \frac{1}{12}$

$$\frac{1}{3} - \frac{1}{12} = \frac{4}{12} - \frac{1}{12} = \frac{3}{12} = \frac{1}{4}$$

$$\frac{1}{4} \div 1\frac{4}{11} = \frac{1}{4} \div \frac{15}{11} = \frac{1 \times 11}{4 \times 15} = \frac{11}{60}$$

よって、 $\frac{1}{3} - \left(0.6 - \frac{3}{16} \right) \div \quad = \frac{11}{60}$ となる。

$$\frac{1}{3} - \left(0.6 - \frac{3}{16} \right) \div \quad = \frac{11}{60} \text{ となる。}$$

$$\frac{1}{3} - \frac{11}{60} = \frac{20}{60} - \frac{11}{60} = \frac{9}{60} = \frac{3}{20}$$

$$0.6 - \frac{3}{16} = \frac{6}{10} - \frac{3}{16} = \frac{48}{80} - \frac{15}{80} = \frac{33}{80}$$

$$\frac{33}{80} \div \frac{3}{20} = \frac{33 \times 20}{80 \times 3} = \frac{\cancel{33} \times \cancel{20}^1}{\cancel{80} \times \cancel{3}_1} = \frac{11}{4} = 2\frac{3}{4}$$

中学入試用計算問題集(第60回) 解答と解き方

【解答】

$$\boxed{1} \quad 100 \qquad \boxed{2} \quad 1.3 \quad \left(1\frac{3}{10}\right) \qquad \boxed{3} \quad 1.03 \quad \left(1\frac{3}{100}\right)$$

【解き方】

$$\begin{aligned} \boxed{1} \quad & 152 - (28 + 4.2 \div 7) \times 2 + 16 \\ & = 152 - (28 + 6) \times 2 + 16 \\ & = 152 - 34 \times 2 + 16 \\ & = 152 - 68 + 16 \\ & = 84 + 16 \\ & = 100 \end{aligned}$$

$$\begin{aligned} \boxed{2} \quad & 25 \times 0.12 = 3 \text{ だから,} \\ & 3\frac{1}{2} - (1.8 - \quad) = 3 \text{ となる。} \\ & 3\frac{1}{2} - 3 = \frac{1}{2} = 0.5 \text{ だから, } 1.8 - \quad = 0.5 \text{ となる。} \\ & = 1.8 - 0.5 = 1.3 \end{aligned}$$

$$\begin{aligned} \boxed{3} \quad & 9.991 \div 0.97 = 10.3 \\ & 9.951 \div (2.1 \times 0.7 - 0.4) \\ & = 9.951 \div (1.47 - 0.4) \\ & = 9.951 \div 1.07 \\ & = 9.3 \\ & 2.991 \div 99.7 = 0.03 \\ & 10.3 - 9.3 + 0.03 = 1 + 0.03 = 1.03 \end{aligned}$$