

中学入試用計算問題集(第49回)

試験時間 7分

()月()日()曜日

① $15 - \{10 - (-8) \times 0.5\} \times \frac{1}{3} = 12$ のとき, $\quad = (\quad)$

② $[1 - \{1 - (1 - \frac{63}{125})\}] \times \frac{25}{31} = (\quad)$

③ $(1 - \frac{2}{3}) \div [\{4 \times (1.5 - \frac{1}{3}) - 1\frac{1}{6}\} \times \frac{3}{14}] = (\quad)$

中学入試用計算問題集(第50回)

試験時間 7分

()月()日()曜日

① $1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9 = (\quad)$

② $1.2 \times \quad + \left(\frac{11}{12} - \frac{5}{8} \right) \div \frac{1}{4} = 13\frac{1}{6}$ のとき, $\quad = (\quad)$

③ $\left\{ 1 - \frac{3}{5} \times (3 - \quad) \right\} \times \frac{1}{4} - 0.6 \div 7 = \frac{1}{7}$ のとき, $\quad = (\quad)$

中学入試用計算問題集(第51回)

試験時間 7分

()月()日()曜日

① $(0.6 - \frac{7}{30}) \div 1\frac{1}{3} = \frac{1}{4}$ のとき, $\quad = (\quad)$

② $2.375 - \frac{7}{8} \div 2\frac{1}{3} + 1\frac{3}{7} \times 0.175 = (\quad)$

③ $36 \div 3\frac{3}{7} + \quad \times 3\frac{5}{24} = 12\frac{5}{6}$ のとき, $\quad = (\quad)$

中学入試用計算問題集(第52回)

試験時間 7分

()月()日()曜日

① $2\frac{1}{7} - \quad \times (\frac{3}{5} - \frac{9}{40}) = 2$ $= (\quad)$

② $(\frac{5}{12} - \frac{1}{8}) \div (0.75 - \quad) = 0.5$ のとき, $= (\quad)$

③ $(2.25 - \frac{1}{3}) \times \frac{8}{15} - (0.5 - \quad) \div \frac{3}{4} = \frac{31}{45}$ のとき, $= (\quad)$

中学入試用計算問題集(第53回)

試験時間 7分

()月()日()曜日

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

② $-9 \div \frac{1}{3} \times 0.4 - \frac{1}{20} = 7\frac{3}{20}$ のとき, $\quad = (\quad)$

③ $(0.2 + \frac{1}{4}) \times \frac{7}{10} \div \quad = \frac{21}{50}$ $\quad = (\quad)$

中学入試用計算問題集(第54回)

試験時間 7分

()月()日()曜日

① $1\frac{1}{2} \div 0.75 \times 0.25 \div \frac{1}{4} \times 2 = (\quad)$

② $0.75 \div \{ (2\frac{1}{6} + 1\frac{2}{3}) - 1\frac{1}{3} \} = (\quad)$

③ $\{ \frac{1}{3} - (\frac{2}{5} - \frac{2}{15}) \} \div 1\frac{7}{18} = (\quad)$

中学入試用計算問題集(第49回) 解答と解き方

【解答】

① 10 ② $\frac{2}{5}$ (0.4) ③ $\frac{4}{9}$

【解き方】

$$\textcircled{1} \quad 15 - \boxed{10 - (-8) \times 0.5} \times \frac{1}{3} = 12$$

$$15 - 12 = 3$$

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

よって, $10 - (-8) \times 0.5 = 9$ となる。

$$10 - 9 = 1 \quad 1 \div 0.5 = 2 \quad 2 + 8 = 10$$

$$\textcircled{2} \quad 1 - \frac{63}{125} = \frac{125}{125} - \frac{63}{125} = \frac{62}{125}$$

$$1 - \frac{62}{125} = \frac{125}{125} - \frac{62}{125} = \frac{63}{125}$$

$$1 - \frac{63}{125} = \frac{125}{125} - \frac{63}{125} = \frac{62}{125}$$

$$\frac{62}{125} \times \frac{25}{31} = \frac{62 \times 25}{125 \times 31} = \frac{2}{5}$$

$$\textcircled{3} \quad \underbrace{\left(1 - \frac{2}{3}\right)}_{\text{ア}} \div \left[\left\{ \underbrace{4 \times \left(1.5 - \frac{1}{3}\right)}_{\text{イ}} - \underbrace{1\frac{1}{6}}_{\text{ウ}} \right\} \times \frac{3}{14} \right]_{\text{オ}}$$

$$\text{ア} \dots 1 - \frac{2}{3} = \frac{3}{3} - \frac{2}{3} = \frac{1}{3}$$

$$\text{イ} \dots 1.5 - \frac{1}{3} = 1\frac{1}{2} - \frac{1}{3} = 1\frac{3}{6} - \frac{2}{6} = 1\frac{1}{6}$$

$$\text{ウ} \dots 4 \times 1\frac{1}{6} = 4 \times \frac{7}{6} = \frac{4 \times 7}{6} = \frac{14}{3} = 4\frac{2}{3}$$

$$\text{エ} \dots 4\frac{2}{3} - 1\frac{1}{6} = 4\frac{4}{6} - 1\frac{1}{6} = 3\frac{3}{6} = 3\frac{1}{2}$$

$$\text{オ} \dots 3\frac{1}{2} \times \frac{3}{14} = \frac{7}{2} \times \frac{3}{14} = \frac{3}{4}$$

$$\frac{1}{3} \div \frac{3}{4} = \frac{1 \times 4}{3 \times 3} = \frac{4}{9}$$

中学入試用計算問題集(第50回) 解答と解き方

【解答】

① 362880 ② 10 ③ $2\frac{6}{7}$

【解き方】

① $1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9$
 $= 6 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9$
 $= 24 \times 5 \times 6 \times 7 \times 8 \times 9$
 $= 120 \times 6 \times 7 \times 8 \times 9$
 $= 720 \times 7 \times 8 \times 9$
 $= 5040 \times 8 \times 9$
 $= 40320 \times 9$
 $= 362880$

② $1.2 \times \left(\frac{1}{12} - \frac{5}{8} \right) \div \frac{1}{4} = 13\frac{1}{6}$
 $\frac{1}{12} - \frac{5}{8} = \frac{2}{24} - \frac{15}{24} = -\frac{13}{24}$ $-\frac{13}{24} \div \frac{1}{4} = -\frac{13}{24} \times 4 = -\frac{13}{6} = -2\frac{1}{6}$
 $1.2 \times (-2\frac{1}{6}) = -2$
 $-2 - 13\frac{1}{6} = -15\frac{1}{6}$ $-15\frac{1}{6} \div (-1.2) = 12\frac{1}{2}$

③ $\left\{ 1 - \frac{3}{5} \times (3 - \quad) \right\} \times \frac{1}{4} - 0.6 \div 7 = \frac{1}{7}$
 $0.6 \div 7 = \frac{3}{5} \div 7 = \frac{3}{5 \times 7} = \frac{3}{35}$
 $\frac{1}{7} + \frac{3}{35} = \frac{5}{35} + \frac{3}{35} = \frac{8}{35}$ よって、 $\left\{ \quad \right\} \times \frac{1}{4} = \frac{8}{35}$ となるから、
 $\left\{ \quad \right\} = \frac{8}{35} \div \frac{1}{4} = \frac{8 \times 4}{35 \times 1} = \frac{32}{35}$
 $1 - \frac{3}{5} \times (3 - \quad) = \frac{32}{35}$ $1 - \frac{32}{35} = \frac{35}{35} - \frac{32}{35} = \frac{3}{35}$
 $\frac{3}{35} \div \frac{3}{5} = \frac{3}{35} \times \frac{5}{3} = \frac{1}{7}$ $3 - \frac{1}{7} = 2\frac{7}{7} - \frac{1}{7} = 2\frac{6}{7}$

中学入試用計算問題集(第51回) 解答と解き方

【解答】

$$\boxed{1} \quad \frac{1}{2} \quad (0.5) \qquad \boxed{2} \quad 2\frac{1}{4} \quad (2.25) \qquad \boxed{3} \quad \frac{8}{11}$$

【解き方】

$$\boxed{1} \quad \frac{1}{4} \times 1\frac{1}{3} = \frac{1}{4} \times \frac{4}{3} = \frac{1 \times 4}{4 \times 3} = \frac{1}{3}$$

$$0.6 = \frac{3}{5} \text{ であるから, } \frac{3}{5} - \frac{7}{30} = \frac{1}{3} \text{ となる } \boxed{\frac{3}{5} - \quad} + \frac{7}{30} = \frac{1}{3} \text{ だから,}$$

$$\frac{1}{3} - \frac{7}{30} = \frac{10}{30} - \frac{7}{30} = \frac{3}{30} = \frac{1}{10} \qquad \frac{3}{5} - \frac{7}{30} = \frac{1}{10} \text{ だから,}$$

$$= \frac{3}{5} - \frac{1}{10} = \frac{6}{10} - \frac{1}{10} = \frac{5}{10} = \frac{1}{2}$$

$$\boxed{2} \quad 2.375 = 2\frac{3}{8} \qquad 0.175 = \frac{175}{1000} = \frac{35}{200} = \frac{7}{40}$$

$$2.375 - \frac{7}{8} \div 2\frac{1}{3} + 1\frac{3}{7} \times 0.175$$

$$= 2\frac{3}{8} - \frac{7}{8} \div 2\frac{1}{3} + 1\frac{3}{7} \times \frac{7}{40} = 2\frac{3}{8} - \frac{7}{8} \div \frac{7}{3} + \frac{10}{7} \times \frac{7}{40}$$

$$= 2\frac{3}{8} - \frac{7 \times 3}{8 \times 7} + \frac{10 \times 7}{7 \times 40} = 2\frac{3}{8} - \frac{3}{8} + \frac{1}{4} = 2 + \frac{1}{4} = 2\frac{1}{4}$$

$$\boxed{3} \quad \boxed{36 \div 3\frac{3}{7}} + \boxed{\times 3\frac{5}{24}} = 12\frac{5}{6}$$

$$36 \div 3\frac{3}{7} = 36 \div \frac{24}{7} = \frac{36 \times 7}{24} = \frac{21}{2} = 10\frac{1}{2}$$

$$12\frac{5}{6} - 10\frac{1}{2} = 12\frac{5}{6} - 10\frac{3}{6} = 2\frac{2}{6} = 2\frac{1}{3}$$

$$\times 3\frac{5}{24} = 2\frac{1}{3} \text{ だから, } = 2\frac{1}{3} \div 3\frac{5}{24} = \frac{7}{3} \div \frac{77}{24} = \frac{7 \times 24}{3 \times 77} = \frac{8}{11}$$

中学入試用計算問題集(第52回) 解答と解き方

【解答】

① $\frac{8}{21}$ ② $\frac{1}{6}$ ③ $\frac{1}{4}$ (0.25)

【解き方】

① $\frac{3}{5} - \frac{9}{40} = \frac{24}{40} - \frac{9}{40} = \frac{15}{40} = \frac{3}{8}$ だから、 $2\frac{1}{7} - \boxed{\times \frac{3}{8}} = 2$ となる。
 $2\frac{1}{7} - 2 = \frac{1}{7}$
 $\times \frac{3}{8} = \frac{1}{7}$ だから、 $= \frac{1}{7} \div \frac{3}{8} = \frac{1 \times 8}{7 \times 3} = \frac{8}{21}$

② $\frac{5}{12} - \frac{1}{8} = \frac{10}{24} - \frac{3}{24} = \frac{7}{24}$, $0.75 = \frac{3}{4}$, $0.5 = \frac{1}{2}$ だから、
 $\frac{7}{24} \div (\frac{3}{4} - \quad) = \frac{1}{2}$ となる。
 $\frac{7}{24} \div \frac{1}{2} = \frac{7 \times 2}{24 \times 1} = \frac{7}{12}$ $\frac{3}{4} - \frac{7}{12} = \frac{9}{12} - \frac{7}{12} = \frac{2}{12} = \frac{1}{6}$

③ $2.25 = 2\frac{1}{4}$ $0.5 = \frac{1}{2}$ だから、この問題は、
 $(2\frac{1}{4} - \frac{1}{3}) \times \frac{8}{15} - (\frac{1}{2} - \quad) \div \frac{3}{4} = \frac{31}{45}$ となる。
 $\boxed{(2\frac{1}{4} - \frac{1}{3}) \times \frac{8}{15}} - \boxed{(\frac{1}{2} - \quad) \div \frac{3}{4}} = \frac{31}{45}$
 $2\frac{1}{4} - \frac{1}{3} = 2\frac{3}{12} - \frac{4}{12} = 1\frac{15}{12} - \frac{4}{12} = 1\frac{11}{12}$
 $1\frac{11}{12} \times \frac{8}{15} = \frac{23}{12} \times \frac{8}{15} = \frac{46}{45}$
 $\frac{46}{45} - \frac{31}{45} = \frac{15}{45} = \frac{1}{3}$ $(\frac{1}{2} - \quad) \div \frac{3}{4} = \frac{1}{3}$ であるから、
 $\frac{1}{3} \times \frac{3}{4} = \frac{1 \times 3}{3 \times 4} = \frac{1}{4}$ $\frac{1}{2} - \frac{1}{4} = \frac{2}{4} - \frac{1}{4} = \frac{1}{4}$

中学入試用計算問題集(第53回) 解答と解き方

【解答】

① 3 ② 18 ③ $\frac{3}{4}$ (0.75)

【解き方】

① $(-\frac{1}{4}) \times 2\frac{2}{3} \div 5\frac{1}{2} = 1\frac{1}{3}$ のとき, $=$ ()

$$\begin{aligned} (\quad) &= 1\frac{1}{3} \times 5\frac{1}{2} \div 2\frac{2}{3} = \frac{4}{3} \times \frac{11}{2} \div \frac{8}{3} = \frac{4 \times 11 \times 3}{3 \times 2 \times 8} = \frac{11}{4} \\ &= \frac{11}{4} + \frac{1}{4} = \frac{12}{4} = 3 \end{aligned}$$

② $9 \div \frac{1}{3} \times 0.4 = 9 \div \frac{1}{3} \times \frac{2}{5} = \frac{9 \times 3 \times 2}{1 \times 5} = \frac{54}{5} = 10\frac{4}{5}$

$-10\frac{4}{5} - \frac{1}{20} = 7\frac{3}{20}$ だから,

$$= 7\frac{3}{20} + \frac{1}{20} + 10\frac{4}{5} = 7\frac{4}{20} + 10\frac{4}{5} = 7\frac{1}{5} + 10\frac{4}{5} = 17\frac{5}{5} = 18$$

③ $0.2 + \frac{1}{4} = \frac{1}{5} + \frac{1}{4} = \frac{4}{20} + \frac{5}{20} = \frac{9}{20}$

$\frac{9}{20} \times \frac{7}{10} = \frac{63}{200}$ だから, $\frac{63}{200} \div \quad = \frac{21}{50}$ となる。

$$= \frac{63}{200} \div \frac{21}{50} = \frac{63 \times 50}{200 \times 21} = \frac{3}{4}$$

中学入試用計算問題集(第54回) 解答と解き方

【解答】

$$\boxed{1} \quad 4 \qquad \boxed{2} \quad \frac{3}{10} \quad (0.3) \qquad \boxed{3} \quad \frac{6}{125} \quad (0.048)$$

【解き方】

$$\boxed{1} \quad 1\frac{1}{2} \div 0.75 \times 0.25 \div \frac{1}{4} \times 2$$

$$= \frac{3}{2} \div \frac{3}{4} \times \frac{1}{4} \div \frac{1}{4} \times \frac{2}{1}$$

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

$$= \frac{\overset{1}{3} \times \overset{1}{4} \times 1 \times 4 \times \overset{1}{2}}{\underset{1}{2} \times \underset{1}{3} \times \underset{1}{4} \times 1 \times 1}$$

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

$$= 4$$

$$\boxed{2} \quad 0.75 = \frac{3}{4}$$

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

$$\frac{3}{4} \div 2\frac{1}{2} = \frac{3}{4} \div \frac{5}{2} = \frac{3 \times 2}{4 \times 5} = \frac{3 \times \overset{1}{2}}{\underset{2}{4} \times 5} = \frac{3}{10}$$

$$\boxed{3} \quad \frac{1}{3} - \left(\frac{2}{5} - \frac{2}{15}\right) = \frac{1}{3} - \left(\frac{6}{15} - \frac{2}{15}\right) = \frac{1}{3} - \frac{4}{15} = \frac{5}{15} - \frac{4}{15} = \frac{1}{15}$$

$$\frac{1}{15} \div 1\frac{7}{18} = \frac{1}{15} \div \frac{25}{18} = \frac{1 \times 18}{15 \times 25} = \frac{1 \times \overset{6}{\cancel{18}}}{\underset{5}{\cancel{15}} \times 25} = \frac{6}{125}$$