

## 中学入試用計算問題集(第37回)

試験時間 7分

( )月( )日( )曜日

①  $(5 + \quad) \times 0.25 - 0.32 \div 1.6 = 1.6$   $= ( \quad )$

②  $(5\frac{1}{9} - \frac{2}{3}) \times \frac{3}{8} \div ( \quad ) = 2.5$

③  $[\{2 - \frac{1}{3} \times (\frac{13}{6} + \frac{10}{3})\} - 0.12] \div (\frac{11}{2} - \frac{5}{6}) = ( \quad )$

## 中学入試用計算問題集(第38回)

試験時間 7分

( )月( )日( )曜日

①  $3.7 - 5 \times (1.5 + \quad \times 3) \div 1.2 = 1.7$  = ( )

②  $1.75 \div 8 \frac{1}{6} + \frac{5}{21} \times 1.2 = ( \quad )$

③  $(3 - \frac{3}{4} \times \frac{6}{13}) \div (\frac{11}{18} - \frac{7}{24}) = ( \quad )$

## 中学入試用計算問題集(第39回)

試験時間 7分

( )月( )日( )曜日

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

②  $2.8 \times \frac{1}{25} \div (3.2 - 1\frac{4}{5}) \times 2\frac{1}{12} = ( \quad )$

③  $14.4 \div 1.2 - 2.5 \times 4.1 + \frac{1}{4} \times \frac{2}{3} = ( \quad )$

## 中学入試用計算問題集(第40回)

試験時間 7分

( )月( )日( )曜日

①  $0.5 \text{ km}^2$  の2%は400 aの( )割( )分です。

ただし, aはアール。

②  $\frac{1}{2} : \frac{1}{3} : ( ) = 15 : ( ) : 6$

③  $0.2783 \div 0.16 = ( )$  あまり  $( )$

ただし, 商は小数第二位まで。

## 中学入試用計算問題集(第41回)

試験時間 7分

( )月( )日( )曜日

①  $\frac{0.78 - 0.78 \times 0.78}{0.156} = ( \quad )$

②  $2\frac{1}{3} \times 0.25 + \frac{2}{7} \div (1.4 - \frac{5}{7}) = ( \quad )$

③  $2.34 \div ( \quad ) = 0.56$  あまり  $0.0272$

## 中学入試用計算問題集(第42回)

試験時間 7分

( )月( )日( )曜日

①  $5 + 8 \times \{ 92 - 20 \div 5 \times (4 + 6 \times 3) \} = ( \quad )$

②  $(21\frac{1}{5} - 6.4 \div 1\frac{3}{5} - 0.8) \times 1\frac{1}{4} - \frac{1}{4} = ( \quad )$

③  $\frac{1}{9} + 2\frac{1}{3} \div (0.6 - \frac{1}{2}) - 1\frac{1}{3} \div 0.3 = ( \quad )$

## 中学入試用計算問題集(第37回) 解答と解き方

【解答】

①  $2.2$  ( $2\frac{1}{5}$ )      ②  $\frac{2}{3}$       ③  $\frac{1}{100}$  ( $0.01$ )

【解き方】

①  $(5 + \quad) \times 0.25 - 0.32 \div 1.6 = 1.6$   
 $0.32 \div 1.6 = 0.2$        $1.6 + 0.2 = 1.8$        $1.8 \div 0.25 = 7.2$   
 $7.2 - 5 = 2.2$

②  $5\frac{1}{9} - \frac{2}{3} = 5\frac{1}{9} - \frac{6}{9} = 4\frac{10}{9} - \frac{6}{9} = 4\frac{4}{9}$   
 $4\frac{4}{9} \times \frac{3}{8} = \frac{40}{9} \times \frac{3}{8} = \frac{40 \times 3}{9 \times 8} = \frac{5}{3}$   
 $2.5 = 2\frac{1}{2}$

$\frac{5}{3} \div 2\frac{1}{2} = 2\frac{1}{2}$  となるから,  $\frac{5}{3} \div 2\frac{1}{2} = \frac{5}{3} \div \frac{5}{2} = \frac{5 \times 2}{3 \times 5} = \frac{2}{3}$

③  $[\{ 2 - \frac{1}{3} \times (\frac{13}{6} + \frac{10}{3}) \} - 0.12] \div (\frac{11}{2} - \frac{5}{6}) = ( \quad )$

ア...  $\frac{13}{6} + \frac{10}{3} = \frac{13}{6} + \frac{20}{6} = \frac{33}{6} = \frac{11}{2}$

イ...  $\frac{11}{2} - \frac{5}{6} = \frac{33}{6} - \frac{5}{6} = \frac{28}{6} = \frac{14}{3}$

ウ...  $\frac{1}{3} \times \frac{11}{2} = \frac{11}{6}$

エ...  $2 - \frac{11}{6} = \frac{12}{6} - \frac{11}{6} = \frac{1}{6}$

オ...  $\frac{1}{6} - 0.12 = \frac{1}{6} - \frac{12}{100} = \frac{1}{6} - \frac{3}{25} = \frac{25}{150} - \frac{18}{150} = \frac{7}{150}$

$\frac{7}{150} \div \frac{14}{3} = \frac{7 \times 3}{150 \times 14} = \frac{1}{100}$

## 中学入試用計算問題集(第38回) 解答と解き方

【解答】

① 11                      ②  $\frac{1}{2}$  (0.5)                      ③  $8\frac{4}{13}$

【解き方】

①  $37 - \boxed{5 \times (15 + \quad \times 3) \div 12} = 17$   
 $37 - 17 = 20$  だから,  $5 \times (15 + \quad \times 3) \div 12 = 20$   
 $\boxed{5 \times (15 + \quad \times 3)} \div 12 = 20$   
 $20 \times 12 = 240$  だから,  $5 \times (15 + \quad \times 3) = 240$   
 $5 \times \boxed{(15 + \quad \times 3)} = 240$   
 $240 \div 5 = 48$  だから,  $15 + \quad \times 3 = 48$   
 $15 + \boxed{\quad \times 3} = 48$   
 $48 - 15 = 33$  だから,  $\quad \times 3 = 33$   
 $\quad = 33 \div 3 = 11$

②  $1.75 = 1\frac{3}{4}$ ,  $1.2 = 1\frac{1}{5}$   
 $1.75 \div 8\frac{1}{6} = 1\frac{3}{4} \div 8\frac{1}{6} = \frac{7}{4} \div \frac{49}{6} = \frac{7 \times 6}{4 \times 49} = \frac{3}{14}$   
 $\frac{5}{21} \times 1.2 = \frac{5}{21} \times 1\frac{1}{5} = \frac{5}{21} \times \frac{6}{5} = \frac{5 \times 6}{21 \times 5} = \frac{2}{7}$   
 $\frac{3}{14} + \frac{2}{7} = \frac{3}{14} + \frac{4}{14} = \frac{7}{14} = \frac{1}{2}$

③  $\frac{3}{4} \times \frac{6}{13} = \frac{3 \times 6}{4 \times 13} = \frac{9}{26}$   
 $3 - \frac{9}{26} = \frac{78}{26} - \frac{9}{26} = \frac{69}{26}$   
 $\frac{11}{18} - \frac{7}{24} = \frac{44}{72} - \frac{21}{72} = \frac{23}{72}$   
 $\frac{69}{26} \div \frac{23}{72} = \frac{69 \times 72}{26 \times 23} = \frac{108}{13} = 8\frac{4}{13}$



## 中学入試用計算問題集(第39回) 解答と解き方

【解答】

$$\boxed{1} \quad 0.101 \quad \left(\frac{101}{1000}\right) \quad \boxed{2} \quad \frac{1}{6} \quad \boxed{3} \quad 1\frac{11}{12}$$

【解き方】

$$\begin{aligned} \boxed{1} \quad & (0.01 + 0.01 \times 0.01) \div 0.01 \times 0.1 \\ & = (0.01 + \boxed{0.01 \times 0.01}) \div 0.01 \times 0.1 \\ & = (0.01 + 0.0001) \div 0.01 \times 0.1 \\ & = 0.0101 \div 0.01 \times 0.1 \\ & = 1.01 \times 0.1 \\ & = 0.101 \end{aligned}$$

$$\begin{aligned} \boxed{2} \quad & 2.8 = 2\frac{4}{5} = \frac{14}{5}, \quad 3.2 - 1\frac{4}{5} = 3\frac{1}{5} - 1\frac{4}{5} = \frac{16}{5} - \frac{9}{5} = \frac{7}{5}, \quad 2\frac{1}{12} = \frac{25}{12} \\ & 2.8 \times \frac{1}{25} \div (3.2 - 1\frac{4}{5}) \times 2\frac{1}{12} \\ & = \frac{14}{5} \times \frac{1}{25} \div \frac{7}{5} \times \frac{25}{12} \\ & = \frac{14 \times 1 \times 5 \times 25}{5 \times 25 \times 7 \times 12} \\ & = \frac{1}{6} \end{aligned}$$

$$\begin{aligned} \boxed{3} \quad & 14.4 \div 1.2 = 12 \\ & 2.5 \times 4.1 = 10.25 = 10\frac{1}{4} \\ & \frac{1}{4} \times \frac{2}{3} = \frac{1 \times 2}{4 \times 3} = \frac{1}{6} \\ & 14.4 \div 1.2 - 2.5 \times 4.1 + \frac{1}{4} \times \frac{2}{3} \\ & = 12 - 10\frac{1}{4} + \frac{1}{6} \\ & = 11\frac{4}{4} - 10\frac{1}{4} + \frac{1}{6} \\ & = 1\frac{3}{4} + \frac{1}{6} \\ & = 1\frac{9}{12} + \frac{2}{12} \\ & = 1\frac{11}{12} \end{aligned}$$

## 中学入試用計算問題集(第40回) 解答と解き方

【解答】

1 2, 5     
 2  $\frac{1}{5}$  (0.2), 10     
 3 1.73, 0.0015

【解き方】

1  $1 \text{ km}^2 = 10000 \text{ a}$

$0.5 \text{ km}^2 = 5000 \text{ a}$

$2\% = 0.02$

$0.5 \text{ km}^2$  の  $2\%$  は  $400 \text{ a}$  の(            )割(            )分です。

$5000 \times 0.02 = 400 \times$

$= 5000 \times 0.02 \div 400 = 100 \div 400 = 0.25$             2割5分

2  $\frac{1}{2} : \frac{1}{3} : \text{ア}$

$= 15 : \text{イ} : 6$

$\frac{1}{2}$  が 15 になっている。これは,  $15 \div \frac{1}{2} = \frac{15 \times 2}{1} = 30$  (倍)。

$\frac{1}{3} \times 30 = \text{イ}$  となるから,  $\text{イ} = 10$ 。

$\text{ア} \times 30 = 6$  となるから,  $\text{ア} = 6 \div 30 = \frac{1}{5}$

3

$$\begin{array}{r}
 0 \times 16 \overline{) 0 \times 27.83} \dots 0.0015 \\
 \underline{16} \\
 118 \\
 \underline{112} \\
 63 \\
 \underline{48} \\
 15
 \end{array}$$

## 中学入試用計算問題集(第41回) 解答と解き方

【解答】

①  $1.1 \quad (1\frac{1}{10})$       ②  $1$       ③  $4.13$

【解き方】

$$\begin{aligned} \text{①} \quad & \frac{0.78 - 0.78 \times 0.78}{0.156} \\ &= \frac{1 \times 0.78 - 0.78 \times 0.78}{0.156} \\ &= \frac{(1 - 0.78) \times 0.78}{0.156} \\ &= \frac{0.22 \times 0.78}{0.156} \\ &= \frac{0.22 \times \cancel{0.78}^5}{\cancel{0.156}_1} \\ &= 1.1 \end{aligned}$$

$$\begin{aligned} \text{②} \quad & 2\frac{1}{3} \times 0.25 = \frac{7}{3} \times \frac{1}{4} = \frac{7 \times 1}{3 \times 4} = \frac{7}{12} \\ & 1.4 - \frac{5}{7} = 1\frac{2}{5} - \frac{5}{7} = 1\frac{14}{35} - \frac{25}{35} = \frac{49}{35} - \frac{25}{35} = \frac{24}{35} \\ & \frac{2}{7} \div \frac{24}{35} = \frac{2 \times 35}{7 \times 24} = \frac{5}{12} \\ & \frac{7}{12} + \frac{5}{12} = \frac{12}{12} = 1 \end{aligned}$$

③ たとえば  $100 \div \quad = 14$  あまり  $2$  ならば,  $100$  の中に  $\quad$  が  $14$  個入っていて, あと  $2$  あまっているという意味。  $\quad$  が  $14$  個ぶんが,  $100 - 2 = 98$  だから,  $1$  個は,  $98 \div 14 = 7$  となる。つまり,  $(100 - 2) \div 14 = 7$  という式になる。

$2.34 \div (\quad) = 0.56$  あまり  $0.0272$  の場合も同じように,

$$\begin{aligned} & (2.34 - 0.0272) \div 0.56 \\ &= 2.3128 \div 0.56 \\ &= 4.13 \end{aligned}$$

## 中学入試用計算問題集(第42回) 解答と解き方

【解答】

① 37                      ②  $20\frac{1}{4}$  (20.25)                      ③ 19

【解き方】

$$\begin{aligned}
 \text{① } & 5 + 8 \times \{ 92 - 20 \div 5 \times (4 + 6 \times 3) \} \\
 & = 5 + 8 \times \{ 92 - 20 \div 5 \times (4 + \boxed{6 \times 3}) \} \\
 & = 5 + 8 \times \{ 92 - 20 \div 5 \times (4 + 18) \} \\
 & = 5 + 8 \times \{ 92 - 20 \div 5 \times \boxed{(4 + 18)} \} \\
 & = 5 + 8 \times \{ 92 - 20 \div 5 \times 22 \} \\
 & = 5 + 8 \times \{ 92 - \boxed{20 \div 5} \times 22 \} \\
 & = 5 + 8 \times (92 - 4 \times 22) \\
 & = 5 + 8 \times (92 - \boxed{4 \times 22}) \\
 & = 5 + 8 \times (92 - 88) \\
 & = 5 + 8 \times 4 \\
 & = 5 + \boxed{8 \times 4} \\
 & = 5 + 32 \\
 & = 37
 \end{aligned}$$

$$\begin{aligned}
 \text{② } & 6.4 \div 1\frac{3}{5} = 6\frac{2}{5} \div 1\frac{3}{5} = \frac{32}{5} \div \frac{3}{5} = \frac{32}{5} \times \frac{5}{3} = \frac{32 \times 5}{5 \times 3} = 4 \\
 & 21\frac{1}{5} - 4 - 0.8 = 21\frac{1}{5} - 4 - \frac{4}{5} = 17\frac{1}{5} - \frac{4}{5} = 16\frac{6}{5} - \frac{4}{5} = 16\frac{2}{5} \\
 & 16\frac{2}{5} \times 1\frac{1}{4} = \frac{82}{5} \times \frac{5}{4} = \frac{82 \times 5}{5 \times 4} = \frac{41}{2} = 20\frac{1}{2} \\
 & 20\frac{1}{2} - \frac{1}{4} = 20\frac{2}{4} - \frac{1}{4} = 20\frac{1}{4}
 \end{aligned}$$

$$\begin{aligned}
 \text{③ } & 0.6 - \frac{1}{2} = \frac{3}{5} - \frac{1}{2} = \frac{6}{10} - \frac{5}{10} = \frac{1}{10} \\
 & 2\frac{1}{3} \div \frac{1}{10} = \frac{7}{3} \div \frac{1}{10} = \frac{7 \times 10}{3 \times 1} = \frac{70}{3} \\
 & 1\frac{1}{3} \div 0.3 = 1\frac{1}{3} \div \frac{3}{10} = \frac{4}{3} \div \frac{3}{10} = \frac{4 \times 10}{3 \times 3} = \frac{40}{9} \\
 & \frac{1}{9} + \frac{70}{3} - \frac{40}{9} = \frac{1}{9} + \frac{210}{9} - \frac{40}{9} = \frac{171}{9} = 19
 \end{aligned}$$