

中学入試用計算問題集(第25回)

試験時間 7分

()月()日()曜日

① $3.3 \times 0.33 - 0.22 \times 2.2 - 1.1 \times 0.11 = (\quad)$

② $0.5 \times \left(\frac{1}{3} - 0.25 \right) \div \left(2.375 - \frac{5}{24} \right) \times 3.2 = (\quad)$

③ $16 - 2.4 \div \left(3.4 - 2\frac{3}{5} + \frac{2}{5} \right) = (\quad)$

中学入試用計算問題集(第26回)

試験時間 7分

()月()日()曜日

① $2\frac{1}{8} - \frac{3}{4} \times 1\frac{2}{3} + \frac{5}{12} + \frac{7}{24} = (\quad)$

② $1.5 \times (3\frac{1}{7} - 2\frac{2}{5}) \div \frac{13}{14} = (\quad)$

③ $1.376 \times 5\frac{1}{3} + 2.145 \times 5\frac{1}{3} - 0.521 \times 5\frac{1}{3} = (\quad)$

中学入試用計算問題集(第27回)

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① $\frac{6}{19} \times (5\frac{1}{6} - \frac{8}{9} - 3\frac{1}{2} \div 2\frac{1}{4}) = (\quad)$

② $(2\frac{1}{4} + 1\frac{2}{3} \times 0.5) \div \frac{4}{5} - 1 = (\quad)$

③ $0.5 + 0.4 \times 0.5 \div \quad = 0.1 \div 0.4 + 0.3 \quad = (\quad)$

中学入試用計算問題集(第28回)

試験時間 7分

()月()日()曜日

① $A \cdot B = \frac{A+B}{A}$ とすると、 $(3 \cdot 5) \cdot (2 \cdot 4) = (\quad)$

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

③ $(6 \cdot 2 \cdot 5 \times 1 \cdot 3 + 2 \times 5 \times 6 \cdot 2 \cdot 5 - 6 \cdot 2 \cdot 5 \times 3) \div 4 = (\quad)$

中学入試用計算問題集(第29回)

試験時間 7分

()月()日()曜日

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

② $248 \div \{ 8.5 \times 1.5 - (1\frac{1}{4} + \frac{7}{2}) \} = ()$

③ $(1.75 \times \frac{5}{21} \times 1.05 + \frac{9}{14} \div \frac{18}{35}) \times 3\frac{1}{3} = ()$

中学入試用計算問題集(第30回)

試験時間 7分

()月()日()曜日

① $7\frac{5}{8} + 1\frac{1}{2} \times \frac{7}{12} - (63\frac{1}{4} - 58\frac{1}{6}) \div 10\frac{1}{6} = (\quad)$

② $(2\frac{3}{5} - \frac{1}{6} \times 0.3) \div 0.75 \times \frac{1}{5} = (\quad)$

③ $4\frac{1}{4} - 0.3 \times \frac{5}{12} + (2\frac{3}{5} - 1.2) \div 1\frac{3}{5} = (\quad)$

中学入試用計算問題集(第25回) 解答と解き方

【解答】

① 4.84 ② $\frac{4}{65}$ ③ 14

【解き方】

① $33 \times 0.33 = 10.89$
 $0.22 \times 22 = 4.84$
 $11 \times 0.11 = 1.21$
 $10.89 - 4.84 - 1.21 = 6.05 - 1.21 = 4.84$

② $0.5 \times \left(\frac{1}{3} - 0.25 \right) \div \left(2.375 - \frac{5}{24} \right) \times 3.2$

ア... $\frac{1}{3} - 0.25 = \frac{1}{3} - \frac{1}{4} = \frac{4}{12} - \frac{3}{12} = \frac{1}{12}$

イ... $2.375 - \frac{5}{24} = 2\frac{3}{8} - \frac{5}{24} = 2\frac{9}{24} - \frac{5}{24} = 2\frac{4}{24} = 2\frac{1}{6} = \frac{13}{6}$

$0.5 = \frac{1}{2}$, $3.2 = 3\frac{1}{5} = \frac{16}{5}$ であるから,

$$\frac{1}{2} \times \frac{1}{12} \div \frac{13}{6} \times \frac{16}{5} = \frac{1 \times 1 \times \cancel{6}^3 \times \cancel{16}^4}{2 \times \cancel{12}^4 \times 13 \times 5} = \frac{4}{65}$$

③ $3.4 - 2\frac{3}{5} + \frac{2}{5} = 3\frac{2}{5} - 2\frac{3}{5} + \frac{2}{5} = 2\frac{7}{5} - 2\frac{3}{5} + \frac{2}{5} = \frac{4}{5} + \frac{2}{5} = \frac{6}{5}$

$2.4 \div \frac{6}{5} = 2\frac{2}{5} \div \frac{6}{5} = \frac{12}{5} \div \frac{6}{5} = \frac{\cancel{12}^2 \times \cancel{5}^1}{5 \times \cancel{6}^1} = 2$

$16 - 2 = 14$

中学入試用計算問題集(第26回) 解答と解き方

【解答】

① $1\frac{7}{12}$ ② 12 ③ 16

【解き方】

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

$$2\frac{1}{8} - \frac{5}{4} + \frac{5}{12} + \frac{7}{24} = \frac{17}{8} - \frac{5}{4} + \frac{5}{12} + \frac{7}{24} = \frac{51 - 30 + 10 + 7}{24}$$

$$= \frac{38}{24} = \frac{19}{12} = 1\frac{7}{12}$$

$$\text{② } 3\frac{1}{7} - 2\frac{2}{5} = 3\frac{5}{35} - 2\frac{14}{35} = 2\frac{40}{35} - 2\frac{14}{35} = \frac{26}{35}$$

$$15 \times \frac{26}{35} \div \frac{13}{14} = \frac{\overset{3}{\cancel{15}} \times \overset{2}{\cancel{26}} \times \overset{2}{\cancel{14}}}{\underset{1}{\cancel{35}} \times \underset{1}{\cancel{13}}} = 12$$

$$\text{③ } 1.376 \times 5\frac{1}{3} + 2.145 \times 5\frac{1}{3} - 0.521 \times 5\frac{1}{3}$$

$$= (1.376 + 2.145 - 0.521) \times 5\frac{1}{3}$$

$$= 3 \times 5\frac{1}{3}$$

$$= 3 \times \frac{16}{3}$$

$$= \frac{\overset{1}{\cancel{3}} \times 16}{\underset{1}{\cancel{3}}}$$

$$= 16$$

中学入試用計算問題集(第27回) 解答と解き方

【解答】

$$\boxed{1} \quad \frac{49}{57} \qquad \boxed{2} \quad 2\frac{41}{48} \qquad \boxed{3} \quad 4$$

【解き方】

$$\boxed{1} \quad 3\frac{1}{2} \div 2\frac{1}{4} = \frac{7}{2} \div \frac{9}{4} = \frac{7 \times 4}{2 \times 9} = \frac{14}{9}$$

$$5\frac{1}{6} - \frac{8}{9} - \frac{14}{9} = \frac{31}{6} - \frac{8}{9} - \frac{14}{9} = \frac{93}{18} - \frac{16}{18} - \frac{28}{18} = \frac{49}{18}$$

$$\frac{6}{19} \times \frac{49}{18} = \frac{1}{3} \times \frac{49}{18} = \frac{49}{54}$$

$$\boxed{2} \quad 1\frac{2}{3} \times 0.5 = \frac{5}{3} \times \frac{1}{2} = \frac{5 \times 1}{3 \times 2} = \frac{5}{6}$$

$$2\frac{1}{4} + \frac{5}{6} = 2\frac{3}{12} + \frac{10}{12} = 2\frac{13}{12} = \frac{37}{12}$$

$$\frac{37}{12} \div \frac{4}{5} = \frac{37 \times 5}{12 \times 4} = \frac{185}{48} = 3\frac{41}{48}$$

$$3\frac{41}{48} - 1 = 2\frac{41}{48}$$

$$\boxed{3} \quad 0.5 + \underbrace{0.4 \times 0.5}_{0.2} \div \underbrace{}_{0.1} = \underbrace{0.1 \div 0.4}_{0.25} + 0.3$$

$$0.5 + 0.2 \div \underbrace{}_{0.1} = \underbrace{0.25}_{0.25} + 0.3$$

$$0.5 + \boxed{0.2 \div } = 0.55$$

$$0.55 - 0.5 = 0.05$$

$$0.2 \div = 0.05 \quad \text{だから,}$$

$$= 0.2 \div 0.05 = 4$$

中学入試用計算問題集(第28回) 解答と解き方

【解答】

① $2\frac{1}{8}$ ② 2 ③ 31.25 ($31\frac{1}{4}$)

【解き方】

① $A \div B = \frac{A+B}{A}$ であるから,

$$3 \div 5 = \frac{3+5}{3} = \frac{8}{3}, \quad 2 \div 4 = \frac{2+4}{2} = \frac{6}{2} = 3$$

$$\frac{8}{3} \div 3 = \frac{\frac{8}{3} + 3}{\frac{8}{3}} = \frac{\frac{8}{3} + \frac{9}{3}}{\frac{8}{3}} = \frac{17}{3} \div \frac{8}{3}$$

ところで、 $2 \div 3 = \frac{2}{3}$ となるように、 $\frac{17}{3} \div \frac{8}{3}$ だから、

$$\frac{17}{3} \div \frac{8}{3} = \frac{17}{3} \div \frac{8}{3} = \frac{17 \times 3}{3 \times 8} = \frac{17}{8} = 2\frac{1}{8}$$

② $2.3 + 2\frac{3}{4} - 3.25 = 2.3 + 2.75 - 3.25 = 1.8$

$$1.8 \div \frac{6}{25} = 1\frac{4}{5} \div \frac{6}{25} = \frac{9}{5} \div \frac{6}{25} = \frac{9 \times 25}{5 \times 6} = \frac{15}{2}$$

$$\frac{15}{2} \div \left(\frac{3}{\quad}\right) = 5 \text{ となるから, } \frac{3}{\left(\frac{3}{\quad}\right)} = \frac{15}{2} \div 5 = \frac{15}{2 \times 5} = \frac{3}{2}$$

$$\frac{3}{\quad} = \frac{3}{2} \text{ だから, } \quad = 2$$

③ $(6.25 \times 13 + 2 \times 5 \times 6.25 - 6.25 \times 3) \div 4$

$$= (6.25 \times 13 + 10 \times 6.25 - 6.25 \times 3) \div 4$$

$$= 6.25 \times (13 + 10 - 3) \div 4$$

$$= 6.25 \times 20 \div 4$$

$$= 6.25 \times \boxed{20 \div 4}$$

$$= 6.25 \times 5$$

$$= 31.25$$

中学入試用計算問題集(第29回) 解答と解き方

【解答】

① $\frac{2}{5}$ ② 31 ③ $5\frac{5}{8}$

【解き方】

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

$$1\frac{1}{3} \div 2\frac{2}{3} = \frac{4}{3} \div \frac{8}{3} = \frac{4 \times 3}{3 \times 8} = \frac{1}{2}$$

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

$$3\frac{3}{4} \times (\frac{4}{5} - \quad) = \frac{3}{2} \quad \text{となる。} \quad \frac{3}{2} \div 3\frac{3}{4} = \frac{3}{2} \div \frac{15}{4} = \frac{3 \times 4}{2 \times 15} = \frac{2}{5}$$

$$\frac{4}{5} - \quad = \frac{2}{5} \quad \text{だから,} \quad \quad = \frac{4}{5} - \frac{2}{5} = \frac{2}{5}$$

② $8.5 \times 1.5 = 12.75$

$$1\frac{1}{4} + \frac{7}{2} = 1\frac{1}{4} + 3\frac{1}{2} = 1\frac{1}{4} + 3\frac{2}{4} = 4\frac{3}{4}$$

$$12.75 - 4\frac{3}{4} = 12\frac{3}{4} - 4\frac{3}{4} = 8$$

$$248 \div 8 = 31$$

③ $(1.75 \times \frac{5}{21} \times 1.05 + \frac{9}{14} \div \frac{18}{35}) \times 3\frac{1}{3}$

ア... $1.75 \times \frac{5}{21} \times 1.05 = 1\frac{3}{4} \times \frac{5}{21} \times 1\frac{1}{20} = \frac{7}{4} \times \frac{5}{21} \times \frac{21}{20}$

$$= \frac{7 \times 5 \times 21}{4 \times 21 \times 20} = \frac{7}{16}$$

イ... $\frac{9}{14} \div \frac{18}{35} = \frac{9 \times 35}{14 \times 18} = \frac{5}{4}$

ウ... $\frac{7}{16} + \frac{5}{4} = \frac{7}{16} + \frac{20}{16} = \frac{27}{16}$

エ... $\frac{27}{16} \times 3\frac{1}{3} = \frac{27}{16} \times \frac{10}{3} = \frac{45}{8} = 5\frac{5}{8}$

中学入試用計算問題集(第30回) 解答と解き方

【解答】

① 8 ② $\frac{17}{25}$ ③ 5

【解き方】

① $7\frac{5}{8} + 1\frac{1}{2} \times \frac{7}{12} - (63\frac{1}{4} - 58\frac{1}{6}) \div 10\frac{1}{6}$

ア... $1\frac{1}{2} \times \frac{7}{12} = \frac{3}{2} \times \frac{7}{12} = \frac{3 \times 7}{2 \times 12} = \frac{7}{8}$

イ... $63\frac{1}{4} - 58\frac{1}{6} = 63\frac{3}{12} - 58\frac{2}{12} = 5\frac{1}{12}$

ウ... $5\frac{1}{12} \div 10\frac{1}{6} = \frac{61}{12} \div \frac{61}{6} = \frac{61 \times 1}{12 \times 61} = \frac{1}{2}$

$7\frac{5}{8} + \frac{7}{8} - \frac{1}{2} = 7\frac{5}{8} + \frac{7}{8} - \frac{4}{8} = 7\frac{8}{8} = 8$

② $(2\frac{3}{5} - \frac{1}{6} \times 0.3) \div 0.75 \times \frac{1}{5}$

ア... $\frac{1}{6} \times 0.3 = \frac{1}{6} \times \frac{3}{10} = \frac{1 \times 3}{6 \times 10} = \frac{1}{20}$

イ... $2\frac{3}{5} - \frac{1}{20} = 2\frac{12}{20} - \frac{1}{20} = 2\frac{11}{20}$

$2\frac{11}{20} \div 0.75 \times \frac{1}{5} = \frac{51}{20} \div \frac{3}{4} \times \frac{1}{5} = \frac{51 \times 4 \times 1}{20 \times 3 \times 5} = \frac{17}{25}$

③ $4\frac{1}{4} - 0.3 \times \frac{5}{12} + (2\frac{3}{5} - 1.2) \div 1\frac{3}{5}$

ア... $0.3 \times \frac{5}{12} = \frac{3}{10} \times \frac{5}{12} = \frac{3 \times 5}{10 \times 12} = \frac{1}{8}$

イ... $2\frac{3}{5} - 1.2 = 2\frac{3}{5} - 1\frac{1}{5} = 1\frac{2}{5}$

ウ... $1\frac{2}{5} \div 1\frac{3}{5} = \frac{7}{5} \div \frac{8}{5} = \frac{7 \times 5}{5 \times 8} = \frac{7}{8}$

$4\frac{1}{4} - \frac{1}{8} + \frac{7}{8} = 4\frac{2}{8} - \frac{1}{8} + \frac{7}{8} = 4\frac{1}{8} + \frac{7}{8} = 5$