

2008 茗溪学園中学校

1. (1)  $4321 - 2341 + 1234 - 3214$   
 (2)  $3.14 - 2.72 + 1.41$   
 (3)  $27 + 42 \div 3 \times 2 - 18 \div 3$   
 (4)  $25 + \frac{1}{3} + \frac{4}{5} - 3$   
 (5)  $\frac{49}{6} - \frac{18}{5} \times \frac{3}{7} \div \frac{3}{14}$   
 (6)  $3 + 6 \div \frac{2}{5} - 0.8 \times 5$   
 (7)  $\frac{19}{14} - \left(\frac{17}{6} - \frac{11}{8}\right) \div \left(\frac{10}{3} + \frac{3}{4}\right)$   
 (8)  $2\frac{2}{3} \times 0.75 - \frac{5}{4} \div \frac{3}{2} \div \frac{8}{9}$   
 (9)  $\left\{\left(2.3 - 1\frac{3}{8}\right) \times 2\frac{2}{3} - 1\frac{1}{3} - \frac{2}{5}\right\} \div 4.4$   
 (10)  $\frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30} + \frac{1}{42}$

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1. (1)  $4.3 \times (0.9 - 0.2) - 0.01$   
 (2)  $\left(\frac{1}{3} - \frac{1}{4}\right) \times \frac{1}{5} \div \frac{1}{6}$   
 (3)  $17 + 20 + 23 + 26 + 29 + 32 + 35 + 38$   
 (4)  $6 \div 8 \times \left[\left(1 + \frac{1}{3}\right) + 2 \div \left\{(0.2 + 2) \times \frac{1}{4} - \frac{2}{5}\right\}\right]$

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1. (1)  $\frac{1}{3} + \left(1 - \frac{3}{14} \div \square \times \frac{1}{3}\right) \div 1\frac{1}{14} = 1$   
 (2)  $(0.2 + 0.002 + 0.0002) \div 0.0001 - \frac{1}{5} \div 0.5 \times 35 = \square$

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1. (1)  $(18 + 43 + 56 + 14 + 37 + 52) \div 11$   
 (2)  $(0.73 + 1.07) \times 2.4 \div 0.48$   
 (3)  $2\frac{1}{4} \div \left(\frac{3}{8} + \frac{3}{4}\right)$   
 (4)  $\left(0.75 - \frac{2}{3}\right) \times \left(1\frac{1}{3} - 1.25\right)$

2. (1)  $\left(2\frac{3}{8} - \square\right) \times 0.8 - 1 = \frac{1}{2}$

2008 麗澤中学校

1. (1)  $3\frac{4}{5} \div \left\{\left(\frac{5}{6} - \frac{2}{3}\right) \times \frac{12}{13} + \frac{1}{3}\right\} = \square$   
 (2)  $\square \times \frac{1}{4} - 12 + \frac{1}{3} \times \square = 9$  ( $\square$ には同じ数はいります。)  
 (3)  $9999 \times 999 = \square$

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$$1. (1) \begin{array}{r} 4321 - 2341 + 1234 - 3214 = \underline{\underline{0}} \\ \underline{1980} \quad \underline{3214} \end{array}$$

$$(2) \begin{array}{r} 3.14 - 2.72 + 1.41 = \underline{\underline{1.83}} \\ \underline{0.42} \end{array}$$

$$(3) \begin{array}{r} 27 + 42 \div 3 \times 2 - 18 \div 3 = \underline{\underline{49}} \\ \underline{14} \quad \underline{28} \quad \underline{6} \end{array}$$

$$(4) 25 + \frac{1}{3} + \frac{4}{5} - 3 = 25 \frac{5}{15} + \frac{12}{15} - 3 = 26 \frac{2}{15} - 3 = \underline{\underline{23 \frac{2}{15}}}$$

$$(5) \frac{49}{6} - \frac{18}{5} \times \frac{3}{7} \div \frac{3}{14} = \frac{49}{6} - \frac{18}{5} \times \frac{1}{5} \times \frac{14}{3} = 7 \frac{7}{6} - 7 \frac{1}{5} = \underline{\underline{\frac{29}{30}}}$$

$$(6) 3 + 6 \div \frac{2}{5} - 0.8 \times 5 = 3 + 3 \times \frac{5}{2} - 4 = \underline{\underline{14}}$$

$$(7) \frac{19}{14} - \left( \frac{17}{6} - \frac{11}{8} \right) \div \left( \frac{10}{3} + \frac{3}{4} \right) = \frac{19}{14} - \left( \frac{68}{24} - \frac{33}{24} \right) \div \left( \frac{40}{12} + \frac{9}{12} \right) \\ = \frac{19}{14} - \frac{35}{24} \times \frac{72}{49} = \frac{14}{14} = \underline{\underline{1}}$$

$$(8) 2 \frac{2}{3} \times 0.75 - \frac{5}{4} \div \frac{3}{2} \div \frac{8}{9} = \frac{8}{3} \times \frac{3}{4} - \frac{5}{4} \times \frac{2}{3} \times \frac{9}{8} \\ = 2 - \frac{15}{16} = \underline{\underline{1 \frac{1}{16}}}$$

$$(9) \left\{ \left( 2.3 - 1 \frac{3}{8} \right) \times 2 \frac{2}{3} - 1 \frac{1}{3} - \frac{2}{5} \right\} \div 4.4 = \left\{ \left( \frac{23}{10} - \frac{11}{8} \right) \times \frac{8}{3} - 1 \frac{1}{3} - \frac{2}{5} \right\} \times \frac{5}{22} \\ = \left( \frac{37}{40} \times \frac{8}{3} - \frac{4}{3} - \frac{2}{5} \right) \times \frac{5}{22} = \frac{37 - 20 - 6}{15} \times \frac{5}{22} = \frac{11}{15} \times \frac{5}{22} = \underline{\underline{\frac{1}{6}}}$$

$$(10) \frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30} + \frac{1}{42} = \frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \frac{1}{4 \times 5} + \frac{1}{5 \times 6} + \frac{1}{6 \times 7} \\ = \left( \frac{1}{2} - \frac{1}{3} \right) + \left( \frac{1}{3} - \frac{1}{4} \right) + \left( \frac{1}{4} - \frac{1}{5} \right) + \left( \frac{1}{5} - \frac{1}{6} \right) + \left( \frac{1}{6} - \frac{1}{7} \right) \\ = \frac{1}{2} - \frac{1}{7} = \frac{7-2}{14} = \underline{\underline{\frac{5}{14}}}$$

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$$1) \quad 4.3 \times \underbrace{(0.9 - 0.2)}_{0.7} - 0.01$$

$$= 3.01 - 0.01 = \underline{\underline{3}}$$

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

$$= \frac{1}{\cancel{+2}_2} \times \frac{1}{5} \times \frac{\cancel{8}^1}{1} = \underline{\underline{\frac{1}{10}}}$$

(3)  $17 + 20 + 23 + 26 + 29 + 32 + 35 + 38$ .

$$= (17 + 38) \times 8 \div 2 = \frac{55 \times 8}{2} = \underline{\underline{220}}$$

$$(4) \quad 6 \div 8 \times \left[ \left( 1 + \frac{1}{3} \right) + 2 \div \left\{ \underset{3}{(0.2 + 2)} \times \underset{4}{\frac{1}{4}} - \frac{2}{5} \right\} \right]$$

$$= 6 \times \frac{1}{8} \times \left\{ \frac{4}{3} + 2 \div \left( \frac{22}{10} \times \frac{1}{\frac{4}{2}} - \frac{2}{5} \right) \right\}$$

$$= \frac{3}{4} \times \left\{ \frac{4}{3} + 2 \div \left( \frac{11}{20} - \frac{8}{20} \right) \right\}$$

$$= \frac{3}{4} \times \left\{ \frac{4}{3} + 2 \times \frac{20}{3} \right\}$$

$$= \frac{\cancel{2}}{\cancel{4}} \times \frac{\cancel{44}}{2} = \underline{\underline{11}}$$

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$$1. (1) \frac{1}{3} + \left( 1 - \frac{3}{14} \div \boxed{\phantom{00}} \times \frac{1}{3} \right) \div \frac{1}{14} = 1$$

①      ②      ③      ④

$$\textcircled{4} = 1 - \frac{1}{3} = \frac{2}{3} \quad \textcircled{3} = \frac{1}{14} \times \frac{2}{3} = \frac{2}{21} \times \frac{2}{2} = \frac{2}{21}$$

$$\textcircled{2} = 1 - \frac{2}{21} = \frac{19}{21} \quad \textcircled{1} = \frac{19}{21} \div \frac{1}{3} = \frac{19}{7}$$

$$\boxed{\phantom{00}} = \frac{3}{14} \div \frac{19}{7} = \frac{3}{14} \times \frac{7}{19} = \frac{3}{38}$$

$$(2) (0.2 + 0.002 + 0.0002) \div 0.0001 - \frac{1}{5} \div 0.5 \times 35$$

0.2022

$$= \frac{2022}{10000} \times \frac{10000}{1} - \frac{1}{5} \times \frac{2}{1} \times 35$$

$$= 2022 - 14 = \underline{\underline{2008}}$$

2008 立正大学付属立正中学

$$1. (1) \quad (\underbrace{18+43}_{70} + \underbrace{56+14}_{70} + \underbrace{37+52}_{70}) \div 11$$

$$= 220 \div 11 = \underline{\underline{20}}$$

$$(2) \quad (\underbrace{0.73+1.07}_{1.8}) \times 2.4 \div 0.48$$

$$= \frac{0.9}{\cancel{1.8}} \times \frac{0.1}{\cancel{2.4}} \times \frac{100}{\cancel{48}} = \underline{\underline{9}}$$

$$(3) \quad 2\frac{1}{4} \div (\frac{3}{8} + \frac{3}{4})$$

$$= \frac{9}{4} \times \frac{8}{9} = \underline{\underline{2}}$$

$$(4) \quad (0.75 - \frac{2}{3}) \times (1\frac{1}{3} - 1.25)$$

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

$$= \frac{1}{12} \times \frac{1}{12} = \underline{\underline{\frac{1}{144}}}$$

$$2. (1) \quad (2\frac{3}{8} - \square) \times 0.8 - 1 = \frac{1}{2}$$

①      ②

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

$$\textcircled{1} = \frac{3}{2} \div 0.8 = \frac{3}{2} \times \frac{5}{4} = \frac{15}{8} = 1\frac{7}{8}$$

$$\begin{aligned} \square &= 2\frac{3}{8} - 1\frac{7}{8} \\ &= 1\frac{11}{8} - 1\frac{7}{8} \\ &= \frac{4}{8} \\ &= \underline{\underline{\frac{1}{2}}} \end{aligned}$$

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$$\begin{aligned} 1 \text{ (1)} \quad & 3\frac{4}{5} \div \left\{ \left( \frac{5}{6} - \frac{2}{3} \right) \times \frac{12}{13} + \frac{1}{3} \right\} \\ &= \frac{19}{5} \div \left( \frac{1}{6} \times \frac{12}{13} + \frac{1}{3} \right) \\ &= \frac{19}{5} \div \frac{19}{39} = \frac{39}{5} = \underline{\underline{7\frac{4}{5}}} \end{aligned}$$

$$(2) \quad \underbrace{\square \times \frac{1}{4}} - 12 + \frac{1}{3} \times \underbrace{\square} = 9$$

$$\textcircled{1} = 12 + 9 = 21$$

$$\begin{aligned} \square \times \left( \frac{1}{4} + \frac{1}{3} \right) - 12 &= 9 \\ \underbrace{\qquad \frac{7}{12} \qquad}_{\textcircled{1}} \end{aligned}$$

$$\begin{aligned} \square &= 21 \div \frac{7}{12} \\ &= \cancel{21}^3 \times \frac{12}{\cancel{7}_1} = \underline{\underline{36}} \end{aligned}$$

$$(3) \quad 9999 \times 999 = (10000 - 1) \times 999$$

$$= 10000 \times 999 - 999$$

$$= 9990000 - 999$$

$$= \underline{\underline{9989001}}$$