

2008 自修館中等教育学校

- /、
- (1) $16 - 3 \times (12 - 7) = \boxed{}$
 - (2) $0.16 \div \frac{1}{4} + 3\frac{3}{5} \times 0.1 = \boxed{}$
 - (3) $0.7 \times 60 + 0.07 \times 2800 - 7 \times 26 = \boxed{}$
 - (4) $\boxed{} - \left(2 - \frac{1}{3}\right) \div 1\frac{1}{4} = 1\frac{2}{3}$
 - (5) 記号※を $a \ast b = \frac{2 \times a}{b}$ と約束します。
このとき、 $(9 \ast 72) \ast (27 \ast 24) = \boxed{}$

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/ (1) $1.5 \div \left\{ \frac{2}{3} - \left(\boxed{} - \frac{3}{4} \right) \right\} = 3.6$

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- /、
- (1) $\frac{2}{3} + \frac{5}{13} - \left(\frac{6}{13} \times \frac{4}{11} - \frac{5}{13} \times \frac{6}{11} \times \frac{5}{9} \right)$
 - (2) $342 \div \left[\left\{ 1 + \frac{4}{5} \div \left(2.4 - 1\frac{1}{3} \right) \right\} \times 1\frac{5}{7} \right]$

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- /、
- (1) $30 - 27 \div 3 + 6 \times 7$
 - (2) $5.9 \times 0.4 + 12.6 \times (4.8 - 3.4)$
 - (3) $5\frac{1}{2} - \frac{6}{5} \times \left(\frac{5}{6} + \frac{11}{12} \right)$
 - (4) $\left\{ \frac{3}{10} \times \left(0.2 + 1\frac{2}{3} \right) \div 1\frac{2}{5} \right\} - \left(0.6 \div 1.2 - \frac{1}{8} \right) \times \frac{4}{9}$

2008 昭和学院秀英中学校(第2回)

- /、
- (1) $(10 - 0.58) \div \frac{1}{3} \div 9 - 2 \times (0.6 \times 4 + 0.74) \div 4 = \boxed{\text{ア}}$
 - (2) $1\frac{2}{3} \times \left(\boxed{} - 2\frac{1}{4} \right) \div \frac{5}{12} = 2\frac{2}{3}$

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- /、
- (1) $(16 + 2008 \div 8) \times 2 \div (140 - 17 \times 3)$
 - (2) $\left(3\frac{2}{3} - \frac{7}{13} \times 1\frac{2}{3} \right) \div \left(7\frac{1}{2} \div 4\frac{1}{3} \times 0.6 \right)$

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1. (1) $16 - 3 \times (12 - 7)$

$$= 16 - 3 \times 5$$

$$= 16 - 15 = \underline{\underline{1}}$$

(2) $0.16 \div \frac{1}{4} + 3\frac{3}{5} \times 0.1$

$$= 0.16 \times 4 + 3.6 \times 0.1$$

$$= 0.64 + 0.36 = \underline{\underline{1}}$$

(3) $0.7 \times 60 + 0.07 \times 2800 - 7 \times 26$

$$= 7 \times 0.1 \times 60 + 7 \times 0.01 \times 2800 - 7 \times 26$$

$$= 7 \times 6 + 7 \times 28 - 7 \times 26$$

$$= 7 \times (6 + 28 - 26) = 7 \times 8 = \underline{\underline{56}}$$

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

$$\downarrow$$
$$\frac{5}{3} \times \frac{4}{5} = \frac{4}{3} = 1\frac{1}{3}$$

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

(5) $a \times b = \frac{2 \times a}{b} = 2 \times a \div b$

$$(9 \times 72) \times (27 \times 24) \rightarrow \frac{1 \times 27^9}{2 \times 84} = \frac{9}{4}$$

$$\downarrow$$
$$\frac{2 \times 9^1}{72} = \frac{1}{4}$$

$$\frac{1}{4} \times \frac{9}{4} = 2 \times \frac{1}{4} \div \frac{9}{4} = \underline{\underline{\frac{2}{9}}}$$

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$$1. (1) 1.5 \div \left\{ \frac{2}{3} - \left(\square - \frac{3}{4} \right) \right\} = 3.6$$

② ①

$$\begin{aligned} \textcircled{2} &= 1.5 \div 3.6 \\ &= \frac{15}{10} \times \frac{10^5}{36} = \frac{5}{12} \end{aligned}$$

$$\begin{aligned} \textcircled{1} &= \frac{2}{3} - \frac{5}{12} \\ &= \frac{3}{12} = \frac{1}{4} \end{aligned}$$

$$\begin{aligned} \square &= \frac{1}{4} + \frac{3}{4} \\ &= \underline{\underline{1}} \end{aligned}$$

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$$1. (1) \frac{2}{3} + \frac{5}{13} - \left(\frac{6}{13} \times \frac{4}{11} - \frac{5}{13} \times \frac{2}{11} \times \frac{5}{3} \right)$$

$$= \frac{2}{3} + \frac{5}{13} - \frac{6 \times 4 \times 3 - 5 \times 2 \times 5}{13 \times 11 \times 3}$$

$$= \frac{2 \times 13 \times 11 + 5 \times 3 \times 11}{3 \times 13 \times 11} - \frac{72 - 50}{13 \times 11 \times 3}$$

$$= \frac{286 + 165 - 22}{13 \times 11 \times 3} = \frac{429}{13 \times 11 \times 3} = \underline{\underline{1}}$$

$$(2) 342 \div \left[\left\{ 1 + \frac{4}{5} \div \left(2.4 - 1\frac{1}{3} \right) \right\} \times 1\frac{5}{7} \right]$$

$$= 342 \div \left[\left\{ 1 + \frac{4}{5} \div \left(\frac{26}{15} - \frac{20}{15} \right) \right\} \times \frac{12}{7} \right]$$

$$= 342 \div \left[\left\{ 1 + \frac{4}{5} \times \frac{15}{10} \right\} \times \frac{12}{7} \right]$$

$$= 342 \div \left(\frac{1}{1} \times \frac{12}{1} \right)$$

$$= 342 \div 3$$

$$= \underline{\underline{114}}$$

2008 湘南学園中学

1. (1) $30 - 27 \div 3 + 6 \times 7 = \underline{63}$

$$(2) \quad 5.9 \times 0.4 + 12.6 \times (4.8 - 3.4)$$

$$= 2.36 + 17.64$$

$$= \underline{\underline{20}}$$

$$(3) \quad 5\frac{1}{2} - \frac{6}{5} \times \left(\frac{5}{6} + \frac{11}{12}\right)$$

$$= 5\frac{1}{2} - \frac{6}{5} \times \frac{21}{12}$$

$$= 5\frac{5}{10} - 2\frac{1}{10} = 3\frac{4}{10} = \underline{\underline{3\frac{2}{5}}}$$

$$(4) \left\{ \frac{3}{10} \times (0.2 + 1\frac{2}{3}) \div 1\frac{2}{5} \right\} - (0.6 \div 1.2 - \frac{1}{8}) \times \frac{4}{9}$$

$$= \frac{8}{10} \times \frac{3+25}{15} \times \frac{8}{8} - \left(\frac{8}{10} \times \frac{10}{12} - \frac{1}{8} \right) \times \frac{4}{9}$$

$$= \frac{2}{5} - \frac{12}{5} \times \frac{4}{5} = \frac{12-5}{30} = \frac{7}{30}$$

$$\begin{array}{r} 5.9 \\ \times 0.4 \\ \hline 236 \end{array}$$

$$\begin{array}{r} 12.6 \\ \times 1.4 \\ \hline 504 \\ 126 \\ \hline 17.64 \end{array}$$

2008 昭和学院 秀英中学 (2回)

$$\begin{aligned}
 1. (1) & (10 - 0.58) \div \frac{1}{3} \div 9 - 2 \times (0.6 \times 4 + 0.74) \div 4 \\
 & = 9.42 \times \cancel{3} \times \frac{1}{\cancel{3}} - \cancel{2} \times \underbrace{(2.4 + 0.74)}_{3.14} \times \frac{1}{\cancel{4} 2} \\
 & = 3.14 - 1.57 \\
 & = \underline{\underline{1.57}}
 \end{aligned}$$

$$(2) \quad \underbrace{\frac{2}{3}}_{\textcircled{2}} \times \left(\underbrace{\square - 2\frac{1}{4}}_{\textcircled{1}} \right) \div \frac{5}{12} = 2\frac{2}{3}$$

$$\textcircled{2} = \frac{5}{\cancel{12} 3} \times \frac{\cancel{8}^2}{3} = \frac{10}{9} \quad \textcircled{1} = \frac{10}{9} \div \frac{5}{3} = \frac{\cancel{10}^2}{\cancel{9} 3} \times \frac{\cancel{3}^1}{\cancel{5} 1} = \frac{2}{3}$$

$$\square = 2\frac{1}{4} + \frac{2}{3} = 2\frac{3}{12} + \frac{8}{12} = \underline{\underline{2\frac{11}{12}}}$$

2008 成蹊 中学

$$\begin{aligned}
 1. (1) & (16 + 2008 \div 8) \times 2 \div (140 - \underbrace{17 \times 3}_{51}) \\
 & = \underbrace{(16 + 251)}_{267} \times 2 \div 89 \\
 & = 534 \div 89 = \underline{\underline{6}}
 \end{aligned}$$

$$\begin{aligned}
 (2) & \left(3\frac{2}{3} - \frac{7}{13} \times 1\frac{2}{3} \right) \div \left(7\frac{1}{2} \div 4\frac{1}{3} \times 0.6 \right) \\
 & = \left(3\frac{2}{3} - \frac{7}{13} \times \frac{5}{3} \right) \div \left(\frac{\cancel{15}^3}{2} \times \frac{3}{13} \times \frac{3}{\cancel{5} 1} \right) \\
 & = \left(\frac{143}{39} - \frac{35}{39} \right) \times \frac{26}{27} \\
 & = \frac{\cancel{143}^4}{\cancel{39} 3} \times \frac{\cancel{26}^2}{\cancel{27} 3} = \frac{8}{3} = \underline{\underline{2\frac{2}{3}}}
 \end{aligned}$$