

2008 学習院女子中等科

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(1) $(30+16) \times \frac{1}{3} + 46 - 16 \div 3 = \square$

(2) $4 \times \{(\square - 8) \div 0.2 + 6\} = 54$

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(1) $27 - 21 \div 7 \times 5 \div 3 - 8 + 6 \times 2 = \square$

(2) $19 - \{5 + (3 \times 6 - 12 \div 3)\} = \square$

(3) $7\frac{3}{5} \times \frac{10}{19} - 2\frac{5}{6} \div 1\frac{5}{12} = \square$

(4) $55 \times 7 - 44 \times 8 + 33 \times 9 - 22 \times 10 = \square$

(5) $4\frac{2}{3} + \left\{3\frac{1}{2} \div \left(1 - \frac{3}{5}\right) + \square\right\} = 13\frac{3}{4}$

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(1) $(50 + 2 - 2 \times 3) - 4 \div \frac{1}{3} = \square$

(2) $4.8 \div \{15 - (32.6 - 5.8) \div 2\} = \square$

(3) $\frac{5}{7} \times 124 + 96 \times \frac{5}{14} - 1\frac{3}{7} \times 51 = \square$

(4) $(\square - 0.25) \div 0.75 + \frac{2}{3} = 1$

(5) $\frac{1}{\square} + \frac{1}{2 \times \square} + \frac{1}{3 \times \square} = \frac{1}{12}$
(3つの□には同じ数が入ります。)

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① $7 \div 2\frac{2}{5} + \frac{3}{20} - 6 \times \left(\frac{2}{3} - 0.6\right) = \square$

② $\left(1.25 + \square \div 3\frac{3}{5}\right) \times 2\frac{2}{5} = 5$

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① $58 \times 7 - 11 \times 22 = \square$

② $\square \div \frac{2}{5} = \frac{7}{6}$

③ $3.5 \times 0.42 - 0.21 \div 1.5 = \square$

④ $50 - (\square \times 3 + 4) = 31$

⑤ $5 : \square = 4 : 7$

⑥ $A \odot B = 2 \times A + 3 \times B$ とするとき、 $12 \odot 8 = \square$

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(1) $\frac{3}{13} + \frac{8}{19} + \frac{3}{22} + \frac{1}{33} + \frac{3}{38} + \frac{4}{39} = \square$

(2) $\left\{\frac{4}{5} - \frac{1}{3} \div \left(\square - \frac{2}{15}\right)\right\} \div \frac{3}{20} \times 4 - 8 = 0$

(3) $\left(3\frac{1}{3} - \frac{5}{12}\right) \div \frac{\square}{24} - \left(0.375 + 2\frac{5}{6}\right) \times 2\frac{2}{11} = 3$

(4) $24\text{cm} \times 0.6\text{m} + \square\text{cm} \times 0.32\text{m} = 0.4\text{m}^2$

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$$1. (1) (30+16) \times \frac{1}{3} + 46 - 16 \div 3$$

$$= \frac{46}{3} + 46 - \frac{16}{3} = 46 \frac{30}{3} = \underline{\underline{56}}$$

$$(2) 4 \times \left\{ (\square - 8) \div 0.2 + 6 \right\} = 54$$

$\begin{array}{c} \textcircled{1} \quad \textcircled{2} \quad \textcircled{3} \\ \text{---} \quad \text{---} \quad \text{---} \end{array}$

$$\textcircled{3} = 54 \div 4 = 13.5$$

$$\textcircled{2} = 13.5 - 6 = 7.5$$

$$\textcircled{1} = 7.5 \times 0.2 = 1.5$$

$$\square = 1.5 + 8 = \underline{\underline{9.5}}$$

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$$1. (1) 27 - 21 \div 7 \times 5 \div 3 - 8 + 6 \times 2$$

$$= 27 - \cancel{21} \times \frac{1}{\cancel{7}} \times 5 \times \frac{1}{\cancel{3}} - 8 + 12 = 27 - 5 - 8 + 12 = \underline{\underline{26}}$$

$$(2) 19 - \{ 5 + (3 \times 6 - 12 \div 3) \} = 19 - \{ 5 + (18 - 4) \} = 19 - 19 = \underline{\underline{0}}$$

$$(3) 7\frac{3}{5} \times \frac{10}{19} - 2\frac{5}{6} \div 1\frac{5}{12} = \frac{\cancel{38}^2}{\cancel{5}_1} \times \frac{10}{19} - \frac{\cancel{12}^2}{\cancel{6}_1} \times \frac{12}{\cancel{12}_1} = 4 - 2 = \underline{\underline{2}}$$

$$(4) 55 \times 7 - 44 \times 8 + 33 \times 9 - 22 \times 10$$

$$= 11 \times 5 \times 7 - 11 \times 4 \times 8 + 11 \times 3 \times 9 - 11 \times 2 \times 10$$

$$= 11 \times (35 - 32 + 27 - 20) = \underline{\underline{110}}$$

$$(5) 4\frac{2}{3} + \left\{ 3\frac{1}{2} \div \left(1 - \frac{3}{5} \right) + \square \right\} = 13\frac{3}{4}$$

$$\frac{7}{2} \times \frac{5}{2} = \frac{35}{4} = 8\frac{3}{4}$$

$$\left\{ \right\} = 13\frac{3}{4} - 4\frac{2}{3} = 13\frac{9}{12} - 4\frac{8}{12} = 9\frac{1}{12}$$

$$\square = 9\frac{1}{12} - 8\frac{3}{4} = 8\frac{13}{12} - 8\frac{9}{12} = \frac{4}{12} = \underline{\underline{\frac{1}{3}}}$$

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$$1. (1) (50 + 2 - 2 \times 3) - 4 \div \frac{1}{3}$$

$$= 46 - 12 = \underline{\underline{34}}$$

$$(2) 4.8 \div \{15 - (32.6 - 5.8) \div 2\} = \underline{\underline{3}}$$

$\begin{array}{r} 26.8 \\ 1.6 \quad 13.4 \end{array}$

$$(3) \frac{5}{7} \times 124 + \frac{48}{7} \times \frac{5}{7} - \frac{3}{7} \times 51$$

$$= \frac{620}{7} + \frac{240}{7} - \frac{510}{7} = \frac{350}{7} = \underline{\underline{50}}$$

$$(4) (\square - 0.25) \div 0.75 + \frac{2}{3} = 1$$

$\begin{array}{cc} (\frac{1}{4}) & (\frac{2}{3}) \\ \textcircled{1} & \textcircled{2} \end{array}$

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

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

$$\square = \frac{1}{4} + \frac{1}{4} = \underline{\underline{\frac{1}{2}}} \quad (0.5)$$

$$(5) \frac{1}{\square} + \frac{1}{2 \times \square} + \frac{1}{3 \times \square} = \frac{1}{12} \rightarrow \frac{11}{12 \times 11} = \frac{11}{132}$$

$\frac{6}{6 \times \square} + \frac{3}{6 \times \square} + \frac{2}{6 \times \square} = \frac{11}{6 \times \square}$

$$6 \times \square = 132$$

$$\square = 132 \div 6 = \underline{\underline{22}}$$

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$$1 \textcircled{1} 7 \div 2\frac{2}{5} + \frac{3}{20} - 6 \times (\frac{2}{3} - 0.6)$$

$$= 7 \times \frac{5}{12} + \frac{3}{20} - 6 \times \frac{1}{15}$$

$$= \frac{175}{60} + \frac{9}{60} - \frac{24}{60} = \frac{160}{60} = \frac{8}{3} = \underline{\underline{2\frac{2}{3}}}$$

$$\textcircled{2} (1.25 + \square \div 3\frac{3}{5}) \times 2\frac{2}{5} = 5$$

①
②

$$\textcircled{2} = 5 \div \frac{12}{5} = \frac{25}{12} \quad \textcircled{1} \frac{25}{12} - \frac{5}{4} = \frac{10}{12} = \frac{5}{6} \quad \square = \frac{3}{5} \times \frac{5}{6} = \underline{\underline{3}}$$

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$$1 \textcircled{1} 58 \times 7 - 11 \times 22 = \underline{\underline{164}}$$

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$$\textcircled{2} \square \div \frac{2}{5} = \frac{7}{6} \quad \square = \frac{2}{5} \times \frac{7}{6} = \underline{\underline{\frac{7}{15}}}$$

$$\textcircled{3} 35 \times 0.42 - 0.21 \div \frac{5}{2} = 1.47 - 0.14 = \underline{\underline{1.33}}$$

$$\textcircled{4} 50 - (\square \times 3 + 4) = 31 \quad () = 50 - 31 = 19$$

$$\square \times 3 = 19 - 4 = 15 \quad \square = 15 \div 3 = \underline{\underline{5}}$$

$$\textcircled{5} 5 : \square = 4 : 7 \quad \square = \frac{5 \times 7}{4} = \frac{35}{4} = 8\frac{3}{4}$$

$$\textcircled{6} 12 \odot 8 = 2 \times 12 + 3 \times 8$$

$$= 24 + 24$$

$$= \underline{\underline{48}}$$

$$\begin{array}{r} 3.5 \\ \times 0.42 \\ \hline 7.0 \\ 140 \\ \hline 1.47 \end{array}$$

$$\begin{array}{r} 0.14 \\ 15 \overline{) 0.31} \\ \underline{15} \\ 60 \end{array}$$

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$$\begin{aligned}
 1^{(1)} \quad & \frac{3}{13} + \frac{8}{19} + \frac{3}{22} + \frac{1}{33} + \frac{3}{38} + \frac{4}{39} \\
 &= \frac{3}{13} + \frac{4}{39} + \frac{8}{19} + \frac{3}{38} + \frac{3}{22} + \frac{1}{33} \\
 &= \frac{13}{39} + \frac{19}{38} + \frac{11}{66} = \frac{1}{3} + \frac{1}{2} + \frac{1}{6} = \frac{6}{6} = \underline{\underline{1}}
 \end{aligned}$$

$$(2) \left\{ \frac{4}{5} - \frac{1}{3} \div (\square - \frac{2}{15}) \right\} \div \frac{3}{20} \times 4 - 8 = 0$$

$$\left\{ \quad \right\} = 0 + 8 \div 4 \times \frac{3}{20} = \frac{3}{10}$$

$$\frac{1}{3} \div (\quad) = \frac{4}{5} - \frac{3}{10} = \frac{1}{2} \quad (\quad) = \frac{1}{3} \div \frac{1}{2} = \frac{2}{3}$$

$$\square = \frac{2}{15} + \frac{2}{3} = \frac{12}{15} = \underline{\underline{\frac{4}{5}}}$$

$$\begin{aligned}
 (3) \quad & \left(3\frac{1}{3} - \frac{5}{12} \right) \div \frac{\square}{24} - (0.375 + 2\frac{5}{6}) \times 2\frac{2}{11} = 3 \\
 & \quad \quad \quad \left(2\frac{11}{12} = \frac{35}{12} \right) \quad \quad \quad \left(\frac{3}{8} + \frac{17}{6} = \frac{37}{6} \right) \\
 & \quad \quad \quad \left(\frac{37}{6} \times \frac{24}{11} = 7 \right)
 \end{aligned}$$

$$\frac{35}{12} \div \frac{\square}{24} - 7 = 3 \quad \frac{35}{12} \div \frac{\square}{24} = 7 + 3 = 10$$

$$\frac{\square}{24} = \frac{35}{12} \div 10 = \frac{7}{24} \quad \underline{\underline{\square = 7}}$$

$$\begin{aligned}
 (4) \quad & 24\text{cm} \times 0.6\text{m} + \square_{\text{cm}} \times 0.32\text{m} = 0.4\text{m}^2 \\
 & \quad \quad \quad (0.24\text{m}) \quad \quad \quad \Delta\text{m} \\
 & \quad \quad \quad \left(0.144\text{m}^2 \right)
 \end{aligned}$$

$$\Delta \times 0.32 = 0.4 - 0.144 = 0.256$$

$$\Delta = 0.256 \div 0.32 = \frac{4}{5} = 0.8\text{m}$$

$$\square = \underline{\underline{80\text{cm}}}$$