

2008 お茶の水女子大学附属中学校

/ 次の計算をしなさい。

(1) $1\frac{3}{4} \div 0.25 - 3 \div 0.75$

(2) $10 - 2 \times 4 + 8 \div 2$

(3) $8.7 \times 3.2 - 3.2 \times 3.7$

(4) $14 \times 55 + 34 \times 36$

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/ (1) 次の計算しなさい。

$$\frac{2}{5} \times 4 + 2.4 \times 0.3$$

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/ 次の にあてはまる数を求めなさい。

(1) $3 - \frac{3}{5} \div 0.75 + 1\frac{2}{3} = \text{$

(2) $\left(\text{} - 2\frac{2}{3} \right) \times 1\frac{5}{7} = 8\frac{4}{5}$

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/ $52 - 2 \times (25 - 20 \div 5 \times 4) + 16 = \text{$

2. $(35 + 38 + 41 + 44 + 47 + 50) \div 45 = \text{$

3. $\left\{ \left(2\frac{1}{2} + 3\frac{3}{5} \right) - (5.7 - 4.3) \right\} \times 30 - 100 = \text{$

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/ (1) 次の にあてはまる数を求めなさい。

$$\left\{ \frac{7}{4} - 12 \times \left(\frac{1}{5} - \frac{1}{6} \right) \div \frac{3}{10} \right\} \times \left(7.45 - \frac{1}{4} \right) = \text{$$

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/ 次の計算をしなさい。

(1) $8.12 \times 0.8 - 0.62 \times 0.8$

(2) $4\frac{2}{5} \div \left(2\frac{1}{7} \div 1\frac{11}{14} \right) - 3\frac{1}{3}$

(3) $3 - \frac{5}{4} - 1.35 + \left(\frac{2}{3} - \frac{1}{4} \right) \times 1.2$

(4) $257 \times 12 - 25.7 \times 60 - 2570 \times 0.6$

(5) $\frac{1}{6 \times 7} + \frac{12}{6 \times 7 \times 8} + \frac{25}{4 \times 5 \times 6 \times 7}$

(6) $8 \div \left\{ \left(4\frac{1}{3} - \frac{3}{5} \right) \times 1.5 - 2.4 \div 1.5 \right\}$

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1. (1) $1\frac{3}{4} \div 0.25 - 3 \div 0.75$

$$= \frac{7}{4} \div \frac{1}{4} - 3 \div \frac{3}{4}$$

$$= \frac{7}{\cancel{4}} \times \frac{\cancel{4}}{1} - 3 \times \frac{4}{\cancel{3}}$$

$$= 7 - 4 = \underline{\underline{3}}$$

(2) $10 - 2 \times \underset{\textcircled{1}}{4} + 8 \div \underset{\textcircled{2}}{2}$

$$= \underset{\textcircled{3}}{10} - 8 + 4$$

$$= 2 + 4$$

$$= \underline{\underline{6}}$$

(3) $8.7 \times \underline{3.2} - \underline{3.2} \times 3.7$

$$= \underline{3.2} \times (8.7 - 3.7)$$

$$= 3.2 \times 5$$

$$= 16.0$$

$$= \underline{\underline{16}}$$

(4) $14 \times 55 + 34 \times 36$

$$\begin{array}{r} \times 55 \\ 70 \\ \underline{70} \\ 770 \end{array}$$

$$\begin{array}{r} \times 36 \\ 204 \\ \underline{102} \\ 1224 \end{array}$$

$$\begin{array}{r} 770 \\ + 1224 \\ \hline 1994 \end{array}$$

$$= \underline{\underline{1994}}$$

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1. (1) $\frac{2}{5} \times 4 + 2.4 \times 0.3$

$$= \frac{8}{5} + 0.72$$

$$= 1.6 + 0.72$$

$$= \underline{\underline{2.32}}$$

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$$1. \text{ ① } 3 - \frac{3}{5} \div 0.75 + 1\frac{2}{3}$$

$$= 3 - \frac{3}{5} \div \frac{3}{4} + 1\frac{2}{3}$$

$$= 3 - \frac{\cancel{3}^1}{5} \times \frac{4}{\cancel{3}_1} + 1\frac{2}{3}$$

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

$$= 2\frac{1}{5} + 1\frac{2}{3}$$

$$= 2\frac{3}{15} + 1\frac{10}{15}$$

$$= \underline{\underline{3\frac{13}{15}}}$$

$$(2) (\square - 2\frac{2}{3}) \times 1\frac{5}{7} = 8\frac{4}{5}$$

$$(\quad) = 8\frac{4}{5} \div 1\frac{5}{7}$$

$$= \frac{\cancel{11}^1 \cancel{44}^1}{5} \times \frac{7}{\cancel{12}_3}$$

$$= \frac{77}{15} = 5\frac{2}{15}$$

$$\square - 2\frac{2}{3} = 5\frac{2}{15}$$

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

$$= 2\frac{10}{15} + 5\frac{2}{15}$$

$$= 7\frac{\cancel{12}^1 \cancel{4}^1}{\cancel{15}_5}$$

$$= \underline{\underline{7\frac{4}{5}}}$$

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$$1. \quad 52 - 2 \times (25 - 20 \div 5 \times 4) + 16$$

$$= 52 - 2 \times (25 - 4 \times 4) + 16$$

$$= 52 - 2 \times (25 - 16) + 16$$

$$= 52 - 2 \times 9 + 16$$

$$= 52 - 18 + 16 = 34 + 16 = \underline{\underline{50}}$$

$$2. \quad (35 + 38 + 41 + 44 + 47 + 50) \div 45$$

$$= 85 \times 3 \div 45 = \frac{85 \times 2}{\frac{45}{2}} = 5\frac{2}{3}$$

$$3. \quad \left\{ \left(2\frac{1}{2} + 3\frac{3}{5} \right) - (5.7 - 4.3) \right\} \times 30 - 100$$

$$= (6.1 - 1.4) \times 30 - 100$$

$$= 4.7 \times 30 - 100$$

$$= 141 - 100$$

$$= \underline{\underline{41}}$$

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$$1. \text{ (1) } \left\{ \frac{7}{4} - 12 \times \left(\frac{1}{5} - \frac{1}{6} \right) \div \frac{3}{10} \right\} \times \left(7.45 - \frac{1}{4} \right)$$

$$= \left(\frac{7}{4} - 12 \times \frac{1}{30} \times \frac{10}{3} \right) \times 7.2$$

$$= \left(\frac{21}{12} - \frac{16}{12} \right) \times 7.2$$

$$= \frac{5}{12} \times \frac{72}{10} = \underline{\underline{3}}$$

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$$\begin{aligned}
 1. (1) & 8.12 \times 0.8 - 0.62 \times 0.8 \\
 &= (8.12 - 0.62) \times 0.8 \\
 &= 7.5 \times 0.8 \\
 &= 6.00 \\
 &= \underline{\underline{6}}
 \end{aligned}$$

$$\begin{aligned}
 (2) & 4\frac{2}{5} \div (2\frac{1}{7} \div 1\frac{11}{14}) - 3\frac{1}{3} \\
 &= \frac{22}{5} \div (\frac{3}{7} \times \frac{14}{11}) - 3\frac{1}{3} \\
 &= \frac{22}{5} \times \frac{5}{3} - 3\frac{1}{3} \\
 &= 3\frac{2}{3} - 3\frac{1}{3} \\
 &= \underline{\underline{\frac{1}{3}}}
 \end{aligned}$$

$$\begin{aligned}
 (3) & 3 - \frac{5}{4} - 1.35 + (\frac{2}{3} - \frac{1}{4}) \times 1.2 \\
 & \quad (1.25) \quad \quad \quad \frac{1}{12} \times \frac{8}{5} \\
 &= 1.8 - 1.25 + \frac{1}{12} \times \frac{8}{5} \\
 &= 0.4 + 0.5 \\
 &= \underline{\underline{0.9}}
 \end{aligned}$$

$$\begin{aligned}
 (4) & 257 \times 12 - 25.7 \times 60 - 2570 \times 0.6 \\
 &= 257 \times 12 - 257 \times 0.1 \times 60 - 257 \times 10 \times 0.6 \\
 &= 257 \times (12 - 6 - 6) \\
 &= \underline{\underline{0}}
 \end{aligned}$$

$$\begin{aligned}
 (5) & \frac{1}{6 \times 7} + \frac{12}{6 \times 7 \times 8} + \frac{25}{4 \times 5 \times 6 \times 7} \\
 &= \frac{4 \times 5 \times 8 + 12 \times 4 \times 5 + 25 \times 8}{4 \times 5 \times 6 \times 7 \times 8} \\
 &= \frac{160 + 240 + 200}{4 \times 5 \times 6 \times 7 \times 8} \\
 &= \frac{600 + 100}{4 \times 5 \times 6 \times 7 \times 8} \\
 &= \frac{5}{56}
 \end{aligned}$$

$$\begin{aligned}
 (6) & 8 \div \left\{ (4\frac{1}{3} - \frac{3}{5}) \times 1.5 - 2.4 \div 1.5 \right\} \\
 &= 8 \div \left(\frac{28}{5} \times \frac{3}{2} - \frac{24}{10} \times \frac{10}{5} \right) \\
 &= 8 \div \left(\frac{28}{5} - \frac{8}{5} \right) \\
 &= 8 \div \frac{20}{5} \\
 &= \underline{\underline{2}}
 \end{aligned}$$