

演習問題 2

問題 次の計算をせよ。

$$(1) \frac{\frac{7}{2}}{\frac{3}{4}} = \frac{7}{2} \times \frac{4}{3} = \frac{14}{3}$$

$$(2) \frac{\frac{1}{4} - \frac{1}{6}}{\frac{4}{3} + \frac{3}{2}} = \frac{\frac{3-2}{12}}{\frac{8+9}{6}} = \frac{1}{12} \times \frac{6}{17} = \frac{1}{34}$$

$$(3) \frac{\frac{1}{6} \div \frac{1}{5}}{\frac{2}{3} \times \frac{1}{5}} = \frac{\frac{5}{6}}{\frac{2}{15}} = \frac{5}{6} \times \frac{15}{2} = \frac{25}{4}$$

$$(4) \frac{\frac{1}{3} \div \frac{2}{5}}{\frac{5}{6} \div \frac{3}{4}} = \frac{\frac{5}{6}}{\frac{10}{9}} = \frac{1}{2} \times \frac{9}{10} = \frac{9}{20}$$

$$(5) \frac{1}{2 - \frac{1}{\frac{2}{5}}} = \frac{1}{2 - \frac{5}{2}} = \frac{1}{-\frac{1}{2}} = -2$$

$$(6) \frac{\frac{3}{4}}{1 + \frac{1}{3 + \frac{1}{2}}} = \frac{\frac{3}{4}}{1 + \frac{2}{7}} = \frac{3}{4} \times \frac{7}{9} = \frac{7}{12}$$

$$(7) (2 - 5 \div (4 + 1 \div 3)) \times 3 \div (4 - 3 \div (3 - 1)) \\ = \left(2 - 5 \div \frac{13}{3}\right) \times 3 \div \left(4 - \frac{3}{2}\right) = \left(2 - \frac{15}{13}\right) \times 3 \times \frac{2}{5} = \frac{11}{13} \times 3 \times \frac{2}{5} = \frac{66}{65}$$

$$(8) 16 \div 4 \times 3 - (18 \div 2) \times 4 + 18 \times (4 \div 2) = 12 - 36 + 36 = 12$$

$$(9) \frac{\frac{3}{4} - \frac{1}{8}}{\frac{1}{6} \div \frac{1}{2}} - \frac{\frac{2}{3} \div \frac{2}{9}}{\frac{5}{6} \times \frac{3}{2}} = \frac{\frac{5}{8} - \frac{3}{12}}{\frac{1}{3}} - \frac{\frac{3}{15}}{\frac{5}{4}} = \frac{15}{8} - \frac{12}{5} = 3 \left(\frac{5}{8} - \frac{4}{5}\right) = 3 \times \left(-\frac{7}{40}\right) = -\frac{21}{40}$$

$$(10) \frac{\frac{1 + \frac{1}{2}}{\frac{5}{2}}}{3 - \frac{1}{4}} = \frac{\frac{\frac{3}{2}}{\frac{5}{2}}}{\frac{11}{4}} = \frac{\frac{3}{5}}{\frac{11}{4}} = \frac{3}{10} \times \frac{11}{8} = \frac{33}{80}$$

$$(11) \frac{\frac{5}{9} - 0.5}{0.15 - \frac{1}{6}} = \frac{\frac{5}{9} - \frac{1}{2}}{\frac{3}{20} - \frac{1}{6}} = \frac{\frac{10-9}{18}}{\frac{9-10}{60}} = -\frac{1}{18} \times 60 = -\frac{10}{3}$$

$$(12) \frac{0.2 - \frac{1}{9}}{\frac{1}{3} - 0.25} = \frac{\frac{1}{5} - \frac{1}{9}}{\frac{1}{3} - \frac{1}{4}} = \frac{\frac{4}{45}}{\frac{1}{12}} = \frac{4}{45} \times 12 = \frac{16}{15}$$