

【1】 次の計算の決まりを使って計算しなさい。

計算のきまり

$$(a \times b) \times c = a \times (b \times c)$$

$$(a + b) \times c = a \times c + b \times c$$

$$(a - b) \times c = a \times c - b \times c$$

$$(1) \left(\frac{1}{2} \times \frac{1}{3}\right) \times \frac{3}{4}$$

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

$$(2) \left(\frac{1}{2} \times \frac{6}{5}\right) \times \frac{1}{6}$$

$$= \frac{1}{2} \times \left(\frac{6}{5} \times \frac{1}{6}\right) = \frac{1}{2} \times \frac{1}{5} = \frac{1}{10}$$

$$(3) \left(\frac{1}{3} \times \frac{5}{12}\right) \times \frac{8}{5}$$

$$= \frac{1}{3} \times \left(\frac{5}{12} \times \frac{8}{5}\right) = \frac{1}{3} \times \frac{2}{3} = \frac{2}{9}$$

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

$$= \frac{2}{7} \times \left(\frac{5}{8} \times \frac{8}{3}\right) = \frac{2}{7} \times \frac{5}{3} = \frac{10}{21}$$

$$(5) \left(\frac{1}{6} + \frac{5}{4}\right) \times \frac{12}{7}$$

$$= \frac{1}{6} \times \frac{12}{7} + \frac{5}{4} \times \frac{12}{7} = \frac{2}{7} + \frac{15}{7} = \frac{17}{7} \left(2\frac{3}{7}\right)$$

$$(6) \left(\frac{3}{5} + \frac{1}{3}\right) \times \frac{15}{8}$$

$$= \frac{3}{5} \times \frac{15}{8} + \frac{1}{3} \times \frac{15}{8} = \frac{9}{8} + \frac{5}{8} = \frac{14}{8} = \frac{7}{4} \left(1\frac{3}{4}\right)$$

$$(7) \left(\frac{7}{5} + \frac{1}{2}\right) \times \frac{10}{9}$$

$$= \frac{7}{5} \times \frac{10}{9} + \frac{1}{2} \times \frac{10}{9} = \frac{14}{9} + \frac{5}{9} = \frac{19}{9} \left(2\frac{1}{9}\right)$$

$$(8) \left(\frac{11}{4} + \frac{1}{2}\right) \times \frac{8}{5}$$

$$= \frac{11}{4} \times \frac{8}{5} + \frac{1}{2} \times \frac{8}{5} = \frac{22}{5} + \frac{4}{5} = \frac{26}{5} \left(5\frac{1}{5}\right)$$

$$(9) \left(\frac{1}{2} - \frac{1}{3}\right) \times \frac{6}{7}$$

$$= \frac{1}{2} \times \frac{6}{7} - \frac{1}{3} \times \frac{6}{7} = \frac{3}{7} - \frac{2}{7} = \frac{1}{7}$$

$$(10) \left(\frac{3}{2} - \frac{4}{3}\right) \times \frac{12}{13}$$

$$= \frac{3}{2} \times \frac{12}{13} - \frac{4}{3} \times \frac{12}{13} = \frac{18}{13} - \frac{16}{13} = \frac{2}{13}$$

$$(11) \left(\frac{3}{4} - \frac{1}{2}\right) \times \frac{8}{5}$$

$$= \frac{3}{4} \times \frac{8}{5} - \frac{1}{2} \times \frac{8}{5} = \frac{6}{5} - \frac{4}{5} = \frac{2}{5}$$

$$(12) \left(\frac{8}{7} - \frac{2}{3}\right) \times \frac{21}{10}$$

$$= \frac{8}{7} \times \frac{21}{10} - \frac{2}{3} \times \frac{21}{10} = \frac{12}{5} - \frac{7}{5} = 1$$

【計算のきまり】分数のかけ算 (2)

名前 _____

【1】 次の計算の決まりを使って計算しなさい。

計算のきまり

$$(a \times b) \times c = a \times (b \times c)$$

$$(a + b) \times c = a \times c + b \times c$$

$$(a - b) \times c = a \times c - b \times c$$

$$(1) \left(\frac{1}{7} \times \frac{5}{6}\right) \times \frac{6}{7}$$

$$= \frac{1}{7} \times \left(\frac{5}{6} \times \frac{6}{7}\right) = \frac{1}{7} \times \frac{5}{7} = \frac{5}{49}$$

$$(2) \left(\frac{5}{7} \times \frac{10}{3}\right) \times \frac{9}{10}$$

$$= \frac{5}{7} \times \left(\frac{10}{3} \times \frac{9}{10}\right) = \frac{5}{7} \times 3 = \frac{15}{7} \left(2\frac{1}{7}\right)$$

$$(3) \left(\frac{3}{2} \times \frac{9}{11}\right) \times \frac{8}{9}$$

$$= \frac{3}{2} \times \left(\frac{9}{11} \times \frac{8}{9}\right) = \frac{3}{2} \times \frac{8}{11} = \frac{12}{11} \left(1\frac{1}{11}\right)$$

$$(4) \left(\frac{5}{2} \times \frac{7}{12}\right) \times \frac{6}{5}$$

$$= \frac{5}{2} \times \left(\frac{7}{12} \times \frac{6}{5}\right) = \frac{5}{2} \times \frac{7}{10} = \frac{7}{4} \left(1\frac{3}{4}\right)$$

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

$$= \frac{5}{3} \times \frac{6}{11} + \frac{1}{6} \times \frac{6}{11} = \frac{10}{11} + \frac{1}{11} = 1$$

$$(6) \left(\frac{3}{8} + \frac{2}{3}\right) \times \frac{24}{7}$$

$$= \frac{3}{8} \times \frac{24}{7} + \frac{2}{3} \times \frac{24}{7} = \frac{9}{7} + \frac{16}{7} = \frac{25}{7} \left(3\frac{4}{7}\right)$$

$$(7) \left(\frac{4}{7} + \frac{3}{14}\right) \times \frac{14}{5}$$

$$= \frac{4}{7} \times \frac{14}{5} + \frac{3}{14} \times \frac{14}{5} = \frac{8}{5} + \frac{3}{5} = \frac{11}{5} \left(2\frac{1}{5}\right)$$

$$(8) \left(\frac{11}{3} + \frac{1}{2}\right) \times \frac{6}{13}$$

$$= \frac{11}{3} \times \frac{6}{13} + \frac{1}{2} \times \frac{6}{13} = \frac{22}{13} + \frac{3}{13} = \frac{25}{13} \left(1\frac{12}{13}\right)$$

$$(9) \left(\frac{9}{4} - \frac{1}{3}\right) \times \frac{12}{7}$$

$$= \frac{9}{4} \times \frac{12}{7} - \frac{1}{3} \times \frac{12}{7} = \frac{27}{7} - \frac{4}{7} = \frac{23}{7} \left(3\frac{2}{7}\right)$$

$$(10) \left(\frac{2}{9} - \frac{1}{6}\right) \times \frac{18}{7}$$

$$= \frac{2}{9} \times \frac{18}{7} - \frac{1}{6} \times \frac{18}{7} = \frac{4}{7} - \frac{3}{7} = \frac{1}{7}$$

$$(11) \left(\frac{8}{3} - \frac{2}{5}\right) \times \frac{15}{2}$$

$$= \frac{8}{3} \times \frac{15}{2} - \frac{2}{5} \times \frac{15}{2} = 20 - 3 = 17$$

$$(12) \left(\frac{1}{2} - \frac{2}{5}\right) \times \frac{10}{9}$$

$$= \frac{1}{2} \times \frac{10}{9} - \frac{2}{5} \times \frac{10}{9} = \frac{5}{9} - \frac{4}{9} = \frac{1}{9}$$

【計算のきまり】分数のかけ算 (3)

名前 _____

【1】 次の計算の決まりを使って計算しなさい。

計算のきまり

$$(a \times b) \times c = a \times (b \times c)$$

$$(a + b) \times c = a \times c + b \times c$$

$$(a - b) \times c = a \times c - b \times c$$

$$(1) \left(\frac{5}{7} \times \frac{2}{9}\right) \times \frac{7}{2}$$

$$= \frac{5}{7} \times \left(\frac{2}{9} \times \frac{7}{2}\right) = \frac{5}{7} \times \frac{7}{9} = \frac{5}{9}$$

$$(2) \left(\frac{3}{4} \times \frac{5}{4}\right) \times \frac{9}{10}$$

$$= \frac{3}{4} \times \left(\frac{5}{4} \times \frac{9}{10}\right) = \frac{3}{4} \times \frac{9}{8} = \frac{27}{32}$$

$$(3) \left(\frac{9}{4} \times \frac{11}{6}\right) \times \frac{1}{11}$$

$$= \frac{9}{4} \times \left(\frac{11}{6} \times \frac{1}{11}\right) = \frac{9}{4} \times \frac{1}{6} = \frac{3}{8}$$

$$(4) \left(\frac{9}{4} \times \frac{5}{8}\right) \times \frac{16}{5}$$

$$= \frac{9}{4} \times \left(\frac{5}{8} \times \frac{16}{5}\right) = \frac{9}{4} \times 2 = \frac{9}{2} \left(4\frac{1}{2}\right)$$

$$(5) \left(\frac{2}{3} + \frac{1}{5}\right) \times \frac{15}{8}$$

$$= \frac{2}{3} \times \frac{15}{8} + \frac{1}{5} \times \frac{15}{8} = \frac{10}{8} + \frac{3}{8} = \frac{13}{8} \left(1\frac{5}{8}\right)$$

$$(6) \left(\frac{2}{3} + \frac{5}{6}\right) \times \frac{18}{7}$$

$$= \frac{2}{3} \times \frac{18}{7} + \frac{5}{6} \times \frac{18}{7} = \frac{12}{7} + \frac{15}{7} = \frac{27}{7} \left(3\frac{6}{7}\right)$$

$$(7) \left(\frac{11}{9} + \frac{4}{3}\right) \times \frac{9}{4}$$

$$= \frac{11}{9} \times \frac{9}{4} + \frac{4}{3} \times \frac{9}{4} = \frac{11}{4} + \frac{12}{4} = \frac{23}{4} \left(5\frac{3}{4}\right)$$

$$(8) \left(\frac{9}{14} + \frac{1}{2}\right) \times \frac{14}{9}$$

$$= \frac{9}{14} \times \frac{14}{9} + \frac{1}{2} \times \frac{14}{9} = 1 + \frac{7}{9} = \frac{16}{9} \left(1\frac{7}{9}\right)$$

$$(9) \left(\frac{8}{5} - \frac{3}{2}\right) \times \frac{10}{7}$$

$$= \frac{8}{5} \times \frac{10}{7} - \frac{3}{2} \times \frac{10}{7} = \frac{16}{7} - \frac{15}{7} = \frac{1}{7}$$

$$(10) \left(\frac{7}{4} - \frac{2}{3}\right) \times \frac{12}{5}$$

$$= \frac{7}{4} \times \frac{12}{5} - \frac{2}{3} \times \frac{12}{5} = \frac{21}{5} - \frac{8}{5} = \frac{13}{5} \left(2\frac{3}{5}\right)$$

$$(11) \left(\frac{11}{4} - \frac{7}{8}\right) \times \frac{8}{11}$$

$$= \frac{11}{4} \times \frac{8}{11} - \frac{7}{8} \times \frac{8}{11} = 2 - \frac{7}{11} = \frac{15}{11} \left(1\frac{4}{11}\right)$$

$$(12) \left(\frac{2}{3} - \frac{4}{7}\right) \times \frac{21}{8}$$

$$= \frac{2}{3} \times \frac{21}{8} - \frac{4}{7} \times \frac{21}{8} = \frac{14}{8} - \frac{12}{8} = \frac{1}{4}$$

【計算のきまり】 分数のかけ算 (4)

名前 _____

【1】 次の計算の決まりを使って計算しなさい。

計算のきまり

$$(a \times b) \times c = a \times (b \times c)$$

$$(a + b) \times c = a \times c + b \times c$$

$$(a - b) \times c = a \times c - b \times c$$

$$(1) \left(\frac{9}{5} \times \frac{2}{3}\right) \times \frac{1}{2}$$

$$= \frac{9}{5} \times \left(\frac{2}{3} \times \frac{1}{2}\right) = \frac{9}{5} \times \frac{1}{3} = \frac{3}{5}$$

$$(2) \left(\frac{3}{7} \times \frac{3}{4}\right) \times \frac{2}{3}$$

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

$$(3) \left(\frac{1}{3} \times \frac{5}{9}\right) \times \frac{8}{5}$$

$$= \frac{1}{3} \times \left(\frac{5}{9} \times \frac{8}{5}\right) = \frac{1}{3} \times \frac{8}{9} = \frac{8}{27}$$

$$(4) \left(\frac{5}{8} \times \frac{7}{6}\right) \times \frac{12}{7}$$

$$= \frac{5}{8} \times \left(\frac{7}{6} \times \frac{12}{7}\right) = \frac{5}{8} \times 2 = \frac{5}{4} \left(1\frac{1}{4}\right)$$

$$(5) \left(\frac{1}{3} + \frac{2}{5}\right) \times \frac{15}{11}$$

$$= \frac{1}{3} \times \frac{15}{11} + \frac{2}{5} \times \frac{15}{11} = \frac{5}{11} + \frac{6}{11} = 1$$

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

$$= \frac{1}{6} \times \frac{6}{5} + \frac{2}{3} \times \frac{6}{5} = \frac{1}{5} + \frac{4}{5} = 1$$

$$(7) \left(\frac{3}{2} + \frac{5}{8}\right) \times \frac{8}{3}$$

$$= \frac{3}{2} \times \frac{8}{3} + \frac{5}{8} \times \frac{8}{3} = 4 + \frac{5}{3} = \frac{17}{3} \left(5\frac{2}{3}\right)$$

$$(8) \left(\frac{7}{4} + \frac{1}{3}\right) \times \frac{12}{11}$$

$$= \frac{7}{4} \times \frac{12}{11} + \frac{1}{3} \times \frac{12}{11} = \frac{21}{11} + \frac{4}{11} = \frac{25}{11}$$

$\left(2\frac{3}{11}\right)$

$$(9) \left(\frac{3}{2} - \frac{8}{7}\right) \times \frac{14}{9}$$

$$= \frac{3}{2} \times \frac{14}{9} - \frac{8}{7} \times \frac{14}{9} = \frac{21}{9} - \frac{16}{9} = \frac{5}{9}$$

$$(10) \left(\frac{5}{2} - \frac{5}{9}\right) \times \frac{18}{7}$$

$$= \frac{5}{2} \times \frac{18}{7} - \frac{5}{9} \times \frac{18}{7} = \frac{45}{7} - \frac{10}{7} = 5$$

$$(11) \left(\frac{3}{4} - \frac{1}{5}\right) \times \frac{20}{7}$$

$$= \frac{3}{4} \times \frac{20}{7} - \frac{1}{5} \times \frac{20}{7} = \frac{15}{7} - \frac{4}{7} = \frac{11}{7} \left(1\frac{4}{7}\right)$$

$$(12) \left(\frac{7}{3} - \frac{1}{2}\right) \times \frac{6}{13}$$

$$= \frac{7}{3} \times \frac{6}{13} - \frac{1}{2} \times \frac{6}{13} = \frac{14}{13} - \frac{3}{13} = \frac{11}{13}$$

【計算のきまり】 分数のかけ算 (5)

名前 _____

【1】 次の計算の決まりを使って計算しなさい。

計算のきまり

$$(a \times b) \times c = a \times (b \times c)$$

$$(a + b) \times c = a \times c + b \times c$$

$$(a - b) \times c = a \times c - b \times c$$

$$\begin{aligned} (1) \quad & \left(\frac{1}{7} \times \frac{5}{6}\right) \times \frac{4}{3} \\ &= \frac{1}{7} \times \left(\frac{5}{6} \times \frac{4}{3}\right) = \frac{1}{7} \times \frac{10}{9} = \frac{10}{63} \end{aligned}$$

$$\begin{aligned} (2) \quad & \left(\frac{1}{4} \times \frac{5}{6}\right) \times \frac{12}{5} \\ &= \frac{1}{4} \times \left(\frac{5}{6} \times \frac{12}{5}\right) = \frac{1}{4} \times 2 = \frac{1}{2} \end{aligned}$$

$$\begin{aligned} (3) \quad & \left(\frac{8}{7} \times \frac{1}{9}\right) \times \frac{3}{8} \\ &= \frac{8}{7} \times \left(\frac{1}{9} \times \frac{3}{8}\right) = \frac{8}{7} \times \frac{1}{24} = \frac{1}{21} \end{aligned}$$

$$\begin{aligned} (4) \quad & \left(\frac{7}{4} \times \frac{15}{16}\right) \times \frac{8}{7} \\ &= \frac{7}{4} \times \left(\frac{15}{16} \times \frac{8}{7}\right) = \frac{7}{4} \times \frac{15}{14} = \frac{15}{8} \left(1\frac{7}{8}\right) \end{aligned}$$

$$\begin{aligned} (5) \quad & \left(\frac{2}{3} + \frac{3}{2}\right) \times \frac{6}{7} \\ &= \frac{2}{3} \times \frac{6}{7} + \frac{3}{2} \times \frac{6}{7} = \frac{4}{7} + \frac{9}{7} = \frac{13}{7} \left(1\frac{6}{7}\right) \end{aligned}$$

$$\begin{aligned} (6) \quad & \left(\frac{1}{6} + \frac{3}{4}\right) \times \frac{12}{5} \\ &= \frac{1}{6} \times \frac{12}{5} + \frac{3}{4} \times \frac{12}{5} = \frac{2}{5} + \frac{9}{5} = \frac{11}{5} \\ & \qquad \qquad \qquad \left(2\frac{1}{5}\right) \end{aligned}$$

$$\begin{aligned} (7) \quad & \left(\frac{1}{8} + \frac{1}{3}\right) \times \frac{24}{11} \\ &= \frac{1}{8} \times \frac{24}{11} + \frac{1}{3} \times \frac{24}{11} = \frac{3}{11} + \frac{8}{11} = 1 \end{aligned}$$

$$\begin{aligned} (8) \quad & \left(\frac{11}{12} + \frac{1}{6}\right) \times \frac{12}{7} \\ &= \frac{11}{12} \times \frac{12}{7} + \frac{1}{6} \times \frac{12}{7} = \frac{11}{7} + \frac{2}{7} = \frac{13}{7} \\ & \qquad \qquad \qquad \left(1\frac{6}{7}\right) \end{aligned}$$

$$\begin{aligned} (9) \quad & \left(\frac{4}{3} - \frac{8}{9}\right) \times \frac{9}{5} \\ &= \frac{4}{3} \times \frac{9}{5} - \frac{8}{9} \times \frac{9}{5} = \frac{12}{5} - \frac{8}{5} = \frac{4}{5} \end{aligned}$$

$$\begin{aligned} (10) \quad & \left(\frac{4}{3} - \frac{3}{5}\right) \times \frac{15}{11} \\ &= \frac{4}{3} \times \frac{15}{11} - \frac{3}{5} \times \frac{15}{11} = \frac{20}{11} - \frac{9}{11} = 1 \end{aligned}$$

$$\begin{aligned} (11) \quad & \left(\frac{1}{2} - \frac{3}{7}\right) \times \frac{14}{9} \\ &= \frac{1}{2} \times \frac{14}{9} - \frac{3}{7} \times \frac{14}{9} = \frac{7}{9} - \frac{6}{9} = \frac{1}{9} \end{aligned}$$

$$\begin{aligned} (12) \quad & \left(\frac{3}{4} - \frac{2}{5}\right) \times \frac{20}{7} \\ &= \frac{3}{4} \times \frac{20}{7} - \frac{2}{5} \times \frac{20}{7} = \frac{15}{7} - \frac{8}{7} = 1 \end{aligned}$$