数学

１次式
分数の１次式の加法・減法

1 次の計算をしなさい。

① $\left(\frac{4}{9}x+\frac{1}{6}\right)+\left(\frac{2}{7}x+\frac{4}{5}\right)$

② $\left(-\frac{1}{3}x+\frac{1}{7}\right)-\left(\frac{2}{5}x-\frac{3}{4}\right)$

③ $\left(\frac{3}{7}x-\frac{2}{9}\right)-\left(-\frac{1}{3}x-\frac{3}{4}\right)$

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

⑤ $\left(-\frac{1}{7}x+\frac{3}{7}\right)+\left(\frac{5}{8}x+\frac{2}{5}\right)$

⑥ $\left(-\frac{2}{5}x+\frac{1}{6}\right)-\left(-\frac{7}{8}x-\frac{3}{4}\right)$

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1 次の計算をしなさい。

① $\left(\frac{4}{9}x+\frac{1}{6}\right)+\left(\frac{2}{7}x+\frac{4}{5}\right)$

$=\frac{4}{9}x+\frac{1}{6}+\frac{2}{7}x+\frac{4}{5}$

$=\frac{4}{9}x+\frac{2}{7}x+\frac{1}{6}+\frac{4}{5}$

$=\frac{28}{63}x+\frac{18}{63}x+\frac{5}{30}+\frac{24}{30}$

$=\frac{46}{63}x+\frac{29}{30}$

② $\left(-\frac{1}{3}x+\frac{1}{7}\right)-\left(\frac{2}{5}x-\frac{3}{4}\right)$

$=-\frac{1}{3}x+\frac{1}{7}-\frac{2}{5}x+\frac{3}{4}$

$=-\frac{1}{3}x-\frac{2}{5}x+\frac{1}{7}+\frac{3}{4}$

$=-\frac{5}{15}x-\frac{6}{15}x+\frac{4}{28}+\frac{21}{28}$

$=-\frac{11}{15}x+\frac{25}{28}$

③ $\left(\frac{3}{7}x-\frac{2}{9}\right)-\left(-\frac{1}{3}x-\frac{3}{4}\right)$

$=\frac{3}{7}x-\frac{2}{9}+\frac{1}{3}x+\frac{3}{4}$

$=\frac{3}{7}x+\frac{1}{3}x-\frac{2}{9}+\frac{3}{4}$

$=\frac{9}{21}x+\frac{7}{21}x-\frac{8}{36}+\frac{27}{36}$

$=\frac{16}{21}x+\frac{19}{36}$

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

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

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

$=-\frac{10}{15}x+\frac{12}{15}x-\frac{5}{20}-\frac{8}{20}$

$=\frac{2}{15}x-\frac{13}{20}$

⑤ $\left(-\frac{1}{7}x+\frac{3}{7}\right)+\left(\frac{5}{8}x+\frac{2}{5}\right)$

$=-\frac{1}{7}x+\frac{3}{7}+\frac{5}{8}x+\frac{2}{5}$

$=-\frac{1}{7}x+\frac{5}{8}x+\frac{3}{7}+\frac{2}{5}$

$=-\frac{8}{56}x+\frac{35}{56}x+\frac{15}{35}+\frac{14}{35}$

$=\frac{27}{56}x+\frac{29}{35}$

⑥ $\left(-\frac{2}{5}x+\frac{1}{6}\right)-\left(-\frac{7}{8}x-\frac{3}{4}\right)$

$=-\frac{2}{5}x+\frac{1}{6}+\frac{7}{8}x+\frac{3}{4}$

$=-\frac{2}{5}x+\frac{7}{8}x+\frac{1}{6}+\frac{3}{4}$

$=-\frac{16}{40}x+\frac{35}{40}x+\frac{2}{12}+\frac{9}{12}$

$=\frac{19}{40}x+\frac{11}{12}$