1 Write down a fraction between $\frac{5}{8}$ and $\frac{3}{4}$.

$\frac{3}{4} = \frac{6}{8}$

$\frac{5}{8}$ $\frac{6}{8}$

$\frac{10}{16}$ $\frac{11}{16}$ $\frac{12}{16}$

$\frac{11}{16}$ [1]

2 (a) Write $\frac{12}{25}$ as a percentage.

$\frac{12}{25} \xrightarrow{\times 4} \frac{48}{100}$

48 % [1]

(b) Work out.

$\frac{2}{7} + \frac{4}{7}$

$\frac{6}{7}$ [1]

2 (a) Write the fraction $\frac{15}{40}$ in its lowest terms.

$\frac{15}{40} \xrightarrow{\div 5} \frac{3}{8}$

$\frac{3}{8}$ [1]

(b) Work out.

$\frac{2}{3} + \frac{2}{9}$

$\frac{2}{3} \times \frac{3}{3} + \frac{2}{9}$

$\frac{6}{9} + \frac{2}{9} = \frac{7}{9}$

$\frac{7}{9}$ [2]

5 (a) Work out $\frac{11}{12} + \frac{3}{4}$.

Give your answer as a mixed number in its simplest form.

$\frac{11}{12} + \frac{3}{4} \times \frac{3}{3}$

$\frac{11}{12} + \frac{9}{12} = \frac{20}{12}$

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

$1\frac{2}{3}$ [2]

5 Work out $\frac{3}{4}-\frac{1}{6}$, giving your answer as a fraction in its lowest terms.

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

$\frac{9}{12}-\frac{2}{12}=\frac{7}{12}$

$\frac{7}{12}$ [2]

7 **Without using a calculator**, work out $\frac{3}{7}-\frac{2}{21}$.

You must show all your working and give your answer as a fraction in its simplest form.

$\frac{3}{7}\times\frac{3}{3}-\frac{2}{21}$

$\frac{9}{21}-\frac{2}{21}=\frac{7}{21}$

$=\frac{1}{3}$

$\frac{1}{3}$ [2]

9 **Without using a calculator**, work out $\frac{1}{3}+\frac{5}{6}$.

You must show all your working and give your answer as a mixed number in its simplest form.

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

$\frac{2}{6}+\frac{5}{6}=\frac{7}{6}$

$=1\frac{1}{6}$

$1\frac{1}{6}$ [2]

3 Work out $\frac{5}{6}-\frac{5}{8}$.

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

$\frac{20}{24}-\frac{15}{24}=\frac{5}{24}$

$\frac{5}{24}$ [2]

11 **Without using a calculator**, work out $1\frac{3}{4} - \frac{11}{12}$.
You must show all your working and give your answer as a fraction in its simplest form.

$\frac{7}{4} \times \frac{3}{3} - \frac{11}{12}$

$\frac{21}{12} - \frac{11}{12} = \frac{10}{12}$

$= \frac{5}{6}$

$\frac{5}{6}$ [3]

10 Work out $2\frac{2}{3} + 3\frac{1}{2}$.
Give your answer as a mixed number in its simplest form.

$\frac{8}{3} \times \frac{2}{2} + \frac{7}{2} \times \frac{3}{3}$

$\frac{16}{6} + \frac{21}{6} = \frac{37}{6}$

$= 6\frac{1}{6}$

$6\frac{1}{6}$ [3]

8 **Without using a calculator**, work out $1\frac{3}{8} - \frac{5}{6}$.
You must show all your working and give your answer as a fraction in its simplest form.

$\frac{11}{8} \times \frac{3}{3} - \frac{5}{6} \times \frac{4}{4}$

$\frac{33}{24} - \frac{20}{24} = \frac{13}{24}$

$\frac{13}{24}$ [3]

10 **Without using a calculator**, work out $5\frac{11}{12}+2\frac{1}{4}$.

You must show all your working and give your answer as a mixed number in its simplest form.

$\frac{71}{12} + \frac{9}{4} \times \frac{3}{3}$

$\frac{71}{12} + \frac{27}{12} = \frac{98}{12}$

$= \frac{49}{6}$

$8\frac{1}{6}$ [3]

7 **Without using a calculator**, work out $3\frac{1}{4}-2\frac{2}{3}$.

You must show all your working and give your answer as a fraction in its simplest form.

$\frac{13}{4} \times \frac{3}{3} - \frac{8}{3} \times \frac{4}{4}$

$\frac{39}{12} - \frac{32}{12} = \frac{7}{12}$

$\frac{7}{12}$ [3]

13 **Without using a calculator**, work out $4\frac{1}{8}-2\frac{5}{6}$.

You must show all your working and give your answer as a mixed number in its simplest form.

$\frac{33}{8} \times \frac{3}{3} - \frac{17}{6} \times \frac{4}{4}$

$\frac{99}{24} - \frac{68}{24} = \frac{31}{24}$

$= 1\frac{7}{24}$

$1\frac{7}{24}$ [3]

2 Work out $4\frac{1}{4} - 1\frac{5}{6}$.

Give your answer as a mixed number in its simplest form.

$\frac{17}{4} \times \frac{3}{3} - \frac{11}{6} \times \frac{2}{2}$

$\frac{51}{12} - \frac{22}{12} = \frac{29}{12}$

$= 2\frac{5}{12}$

$2\frac{5}{12}$ [3]

7 **Without using a calculator**, work out $1\frac{5}{6} + \frac{2}{5}$.

You must show all your working and give your answer as a mixed number in its simplest form.

$\frac{11}{6} \times \frac{5}{5} + \frac{2}{5} \times \frac{6}{6}$

$\frac{55}{30} + \frac{12}{30} = \frac{67}{30}$

$= 2\frac{7}{30}$

$2\frac{7}{30}$ [3]

15 **Without using a calculator**, work out $2\frac{1}{3} \times \frac{11}{14}$.

You must show all your working and give your answer as a mixed number in its simplest form.

$\frac{7}{3} \times \frac{11}{14^{2}} = \frac{11}{6}$

$= 1\frac{5}{6}$

Answer: $1\frac{5}{6}$ [3]

6 **Without using a calculator**, work out $2\frac{2}{3} \times 2\frac{3}{4}$.

You must show all your working and give your answer as a mixed number in its simplest form.

$\frac{8}{3} \times \frac{11}{4} = \frac{22}{3}$

$= 7\frac{1}{3}$

Answer: $7\frac{1}{3}$ [3]

9 **Without using a calculator**, work out $1\frac{1}{7} \times 2\frac{1}{10}$.

You must show all your working and give your answer as a mixed number in its simplest form.

$\frac{8}{7} \times \frac{21}{10} = \frac{12}{5}$

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

Answer: $2\frac{2}{5}$ [3]

7 **Without using a calculator,** work out $2\frac{1}{4} \times 3\frac{2}{3}$.

You must show all your working and give your answer as a mixed number in its simplest form.

$\frac{9}{4} \times \frac{11}{3} = \frac{33}{4}$

$= 8\frac{1}{4}$

$8\frac{1}{4}$ [3]

8 **Without using a calculator**, work out $\frac{2}{9} \div \frac{5}{6}$.

You must show all your working and give your answer as a fraction in its simplest form.

$\frac{2}{9} \times \frac{6}{5} = \frac{4}{15}$

$\frac{4}{15}$ [2]

5 **Without using a calculator,** work out $\frac{15}{28} \div \frac{4}{7}$.

You must show all your working and give your answer as a fraction in its simplest form.

$\frac{15}{28} \times \frac{7}{4} = \frac{15}{16}$

$\frac{15}{16}$ [3]

5 Work out.

$\frac{3}{4} \div \frac{8}{9}$

$\frac{3}{4} \times \frac{9}{8} = \frac{27}{32}$

$\frac{27}{32}$ [2]

3 Work out $\frac{5}{6} \div \frac{15}{16}$.

Give your answer as a fraction in its lowest terms.

$\frac{1}{\cancel{5}} \times \frac{\cancel{16}^{8}}{\cancel{15}^{3}} = \frac{8}{9}$

$\frac{8}{9}$ [2]

10 **Without using a calculator**, work out $2\frac{1}{7} \div \frac{5}{9}$.

You must show all your working and give your answer as a mixed number in its simplest form.

$\frac{15}{7} \div \frac{5}{9}$

$\frac{\cancel{15}^{3}}{7} \times \frac{9}{\cancel{5}^{1}} = \frac{27}{7}$

$= 3\frac{6}{7}$

$3\frac{6}{7}$ [3]

9 **Without using a calculator**, work out $1\frac{2}{3} \div 7\frac{1}{2}$.

You must show all your working and give your answer as a fraction in its simplest form.

$\frac{5}{3} \div \frac{15}{2}$

$\frac{\cancel{5}^{1}}{3} \times \frac{2}{\cancel{15}^{3}} = \frac{2}{9}$

$\frac{2}{9}$ [3]

7 **Without using a calculator**, work out $\frac{4}{7} \div 1\frac{5}{21}$.

You must show all your working and give your answer as a fraction in its simplest form.

$$\frac{4}{7} \div \frac{26}{21}$$

$$\frac{\cancel{4}^{2}}{\cancel{7}_{1}} \times \frac{\cancel{21}^{3}}{\cancel{26}_{13}} = \frac{6}{13}$$

$\frac{6}{13}$ [3]

9 **Without using a calculator**, work out $\frac{2}{3} \div 1\frac{3}{7}$.

You must show all your working and give your answer as a fraction in its simplest form.

$$\frac{2}{3} \div \frac{10}{7}$$

$$\frac{\cancel{2}^{1}}{3} \times \frac{7}{\cancel{10}_{5}} = \frac{7}{15}$$

$\frac{7}{15}$ [3]

3 Work out $2\frac{1}{2} \div 3\frac{1}{4}$.

Give your answer as a fraction in its simplest form.

$$\frac{5}{2} \div \frac{13}{4}$$

$$\frac{5}{\cancel{2}_{1}} \times \frac{\cancel{4}^{2}}{13} = \frac{10}{13}$$

$\frac{10}{13}$ [3]

6 **Without using a calculator**, work out $\frac{4}{7} \div 8$.

You must show all your working and give your answer as a fraction in its simplest form.

$\frac{4}{7} \div \frac{8}{1}$

$\frac{4}{7} \times \frac{1}{8} = \frac{1}{14}$

$\frac{1}{14}$

..... [2]

6 **Without using a calculator**, work out $\frac{1}{3} \div \frac{7}{6} + \frac{1}{5}$.

You must show all your working and give your answer as a fraction in its simplest form.

B
I
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$\frac{1}{3} \div \frac{7}{6} + \frac{1}{5}$

$\frac{1}{3} \times \frac{6}{7} + \frac{1}{5}$

$\frac{2}{7} \times \frac{5}{5} + \frac{1}{5} \times \frac{7}{7}$

$\frac{10}{35} + \frac{7}{35} = \frac{17}{35}$

$\frac{17}{35}$

..... [4]

4 Work out.

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

B
I
DM
AS

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

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

$\frac{10}{12} - \frac{3}{12} = \frac{7}{12}$

$\frac{7}{12}$

..... [3]

8 **Without using a calculator**, work out $\left(2\frac{1}{3}-\frac{7}{8}\right)\times\frac{6}{25}$.

You must show all your working and give your answer as a fraction in its simplest form.

$$\left(\frac{7}{3}\times\frac{8}{8}-\frac{7}{8}\times\frac{3}{3}\right)\times\frac{6}{25}$$

$$\left(\frac{56}{24}-\frac{21}{24}\right)\times\frac{6}{25}$$

$$\frac{35}{24}\times\frac{6}{25}=\frac{7}{20}$$

$\frac{7}{20}$ ..... [4]