FRACTIONS-SET-1

1	**1** Calculate $$\frac{5^2}{2^5}$$ **(a)** giving your answer as a fraction, *Answer (a)* .... [1] **(b)** giving your answer as a decimal. *Answer (b)* .... [1]
MS-1	**(a)** 25/32 1 **(b)** 0.781 (25) 1√
2	**Without using your calculator**, work out the following. **Show all the steps of your working** and give each answer as a fraction in its simplest form. **(a)** $\dfrac{11}{12} - \dfrac{1}{3}$ *Answer(a)* .... [2] **(b)** $\dfrac{1}{4} \div \dfrac{11}{13}$ *Answer(b)* .... [2]

MS-2	(a)	$\dfrac{11}{12} - \dfrac{4}{12}$ oe	2	**M1** correct use of a common denominator
		$\dfrac{7}{12}$ **cao ww 0**		**A1**
	(b)	$\dfrac{1}{4} \times \dfrac{13}{11}$ oe	2	**M1** inversion and operation change
		$\dfrac{13}{44}$ **cao ww 0**		**A1**

3	**Without using a calculator**, work out $1\frac{4}{5} \div \frac{3}{7}$.
	Show all your working and give your answer as a fraction in its lowest terms.
	Answer .... [3]

MS-3	$\dfrac{9}{5}$	**B1**	or $\dfrac{63}{35}$
	their $\dfrac{9}{5} \times \dfrac{7}{3}$ or $\dfrac{9 \times 7}{5 \times 3}$	**M1**	or *their* $\dfrac{63}{35} \div \dfrac{15}{35}$ or equivalent division with fractions with common denominators
	$\dfrac{21}{5}$ or $4\dfrac{1}{5}$ cao	**A1**	

| 4 | Without using a calculator, work out $\frac{4}{5} \div 2\frac{2}{3}$.

Write down all the steps of your working and give your answer as a fraction in its simplest form.

Answer .... [3] |
|---|---|
| MS-4 | $\frac{8}{3}$ **B1**   or $\frac{40}{15}$ accept $\frac{3}{8}$ or $\frac{15}{40}$

$\frac{4}{5} \times their \frac{3}{8}$ oe   **M1**   or $\frac{12}{15} \div their \frac{40}{15}$ or equivalent division with fractions with common denominators

$\frac{3}{10}$ cao   **A1** |
| | |
| 5 | **Without using a calculator**, work out $1\frac{7}{8} \div \frac{5}{9}$.

Show all your working and give your answer as a fraction in its lowest terms.

Answer .... [3] |

MS-5				
	$\dfrac{15}{8}$	**B1**	or $\dfrac{135}{72}$	
	their $\dfrac{15}{8} \times \dfrac{9}{5}$ oe	**M1**	or $\dfrac{135}{72} \div \dfrac{40}{72}$ or equivalent division with fractions with common denominators	
	$\dfrac{27}{8}$ or $3\dfrac{3}{8}$ cao	**A1**		

6	**Without using a calculator**, work out $\dfrac{6}{7} \div 1\dfrac{2}{3}$.
	Show all your working and give your answer as a fraction in its lowest terms.
	.... [3]

MS-6			
	$\dfrac{6}{7} \times \dfrac{3}{5}$ or $\dfrac{18}{21} \div \dfrac{35}{21}$ oe	**M2**	**B1** for $\dfrac{5}{3}$ oe or **M1** for $\dfrac{6}{7} \times$ *their* $\dfrac{3}{5}$
	$\dfrac{18}{35}$ cao	**A1**	

7	**Without using a calculator**, work out $\frac{1}{12} \times 1\frac{1}{5}$.
	Show all your working and give your answer as a fraction in its lowest terms.
	.... [2]

MS-7	$\frac{1}{12} \times \frac{6}{5}$ oe	**M1**	Must be shown
	$\frac{1}{10}$ final answer cao	**A1**	

8	**Without using a calculator**, work out $\frac{5}{6} - \frac{1}{2}$.
	Show all the steps of your working and give your answer as a fraction in its simplest form.
	.... [2]

MS-8	$\frac{5}{6} - \frac{3}{6}$ oe	**M1**	oe for $\frac{5k}{6k} - \frac{3k}{6k}$
	$\frac{1}{3}$ cao final answer	**A1**	

9	**Without using your calculator**, work out $\frac{11}{12} - \left(\frac{3}{4} - \frac{2}{3}\right)$. You must show all your working and give your answer as a fraction in its simplest form. .... [4]

10	**Without using your calculator**, work out $1\frac{3}{4} \times \frac{6}{35}$. You must show all your working and give your answer as a fraction in its simplest form. .... [3]

MS-10	$\dfrac{7}{4}$		**M1**	or $\dfrac{k}{4} \times \dfrac{6}{35}$ where $k > 4$
	$\dfrac{3}{10}$ cao		**A2**	**A1** for $\dfrac{42}{140}$ or $\dfrac{21}{70}$ or $\dfrac{6}{20}$

11	**Without using your calculator**, work out $\dfrac{2}{3} - \dfrac{1}{12}$.
	You must show all your working and give your answer as a fraction in its simplest form.
	.... [2]

MS-11	$\dfrac{8}{12}$ and $\dfrac{1}{12}$ oe		**M1**	For correct fractions with a common denominator $12k$
	$\dfrac{7}{12}$ cao		**A1**	