

STAGE 7 MATHEMATICS

TOPIC QUESTIONS

TOPIC: FRACTIONS, DECIMALS, PERCENTAGES

SET-3

1.

- (a) Write $\frac{11}{3}$ as a mixed number.

..... [1]

- (b) **Without using a calculator**, work out $\frac{1}{4} + \frac{5}{12}$.

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

..... [2]

MARK SCHEME 1;

(a)	$3\frac{2}{3}$ cao	1	
(b)	$\frac{3}{12}$ [and $\frac{5}{12}$] oe	M1	For correct method to find common denominator e.g. $\frac{12}{48}$ and $\frac{20}{48}$
	$\frac{2}{3}$ cao	A1	

2.

Fraction		Decimal		Percentage
$\frac{1}{2}$	=	0.5	=	50
.....	=	0.25	=
$\frac{1}{5}$	=	=	20

Complete the table.

[3]

MARK SCHEME:

	$\frac{1}{4}$ oe fraction 25 0.2	3	B1 for each in correct place

3

Write

(a) $\frac{1}{2}$ as a percentage,

..... % [1]

(b) 0.7 as a fraction,

..... [1]

(c) $\frac{11}{20}$ as a decimal.

..... [1]

(a)	50	1	
(b)	$\frac{7}{10}$ or equivalent fraction	1	
(c)	0.55 cao	1	

- 4 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.

..... [3]

MARK SCHEME:

$\frac{15}{28} \times \frac{7}{4}$ or $\frac{15}{28} \div \frac{16}{28}$ oe	M1	
$\frac{15}{16}$ cao	A2	A1 for $\frac{105}{112}$ oe

5. Write these numbers in order, starting with the smallest.

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$$\frac{13}{201}$$

5.6%

0.065

$$\frac{5}{89}$$

..... < < < [2]
smallest

5.6%	$\frac{5}{89}$	$\frac{13}{201}$	0.065	2	B1 for 3 in correct order or M1 for 0.0647 0.056 0.0562 seen oe
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6

- (a) Put a ring around the fraction that is equivalent to $\frac{7}{12}$.

$\frac{35}{62}$

$\frac{20}{36}$

$\frac{49}{84}$

$\frac{82}{144}$

$\frac{64}{110}$

[1]

- (b) Write these numbers in order, starting with the smallest.

$\frac{7}{12}$

0.6

58%

$\frac{8}{13}$

$\frac{2}{3}$

..... < < < < [2]
smallest

- (c) Write 0.724 as a fraction in its simplest form.

..... [1]

MARK SCHEME:

(a)	$\frac{49}{84}$	1	
(b)	58% $\frac{7}{12}$ 0.6 $\frac{8}{13}$ $\frac{2}{3}$	2	B1 for 4 in correct order or M1 for 0.583[...], [0.6], 0.58, 0.615[...] or 0.61 or 0.62, 0.66[...] or 0.67 or 0.667 or 0.7 oe
(c)	$\frac{181}{250}$ cao	1	

- 7 (a) Write down a fraction which is equivalent to $\frac{3}{5}$.

..... [1]

- (b) Write down the reciprocal of 7.

..... [1]

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MARK SCHEME:

(a)	$\frac{3k}{5k}$ where k is an integer $\neq 1$	1	
(b)	$\frac{1}{7}$ oe	1	