

## Maths Assessment Year 5 Term 3: Fractions

- 1. Compare and order fractions whose denominators are all multiples of the same number.
- 2. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
- 3. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example,  $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ ].
- 4. Add and subtract fractions with the same denominator, and denominators that are multiples of the same number.
- 5. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.
- 6. Read and write decimal numbers as fractions [for example,  $0.71 = \frac{71}{100}$  ].
- 7. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
- 8. Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place.
- 9. Read, write, order and compare numbers with up to 3 decimal places.
- 10. Solve problems involving number up to 3 decimal places.
- 11. Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction.
- 12. Solve problems which require knowing percentage and decimal equivalents of  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ ,  $\frac{2}{5}$ ,  $\frac{4}{5}$  and those fractions with a denominator of a multiple of 10 or 25.



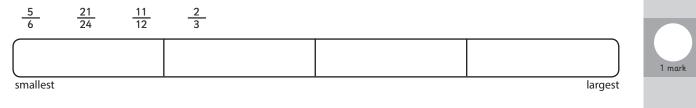
## Maths Assessment Year 5 Term 3: Fractions

1. Compare and order fractions whose denominators are all multiples of the same number.

a) Use the symbols <, > or = to compare these fractions:

	< or >	
45		<u>9</u> 10
<u>7</u> 12		<u>3</u> 6
<u>3</u> 4		9 12

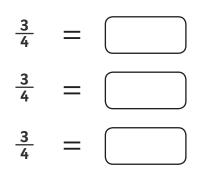
## b) Order these fractions from smallest to largest:



- 2. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
- a) Here is a rectangle.  $\frac{6}{18}$  of the square has been shaded. Use the diagram to help you write two equivalent fractions of  $\frac{6}{18}$ .

<u>6</u> 18	=		=		
		$\subseteq$	,	$\square$	

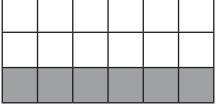
b) Write 3 fractions equivalent to 3/4:





2 marks









3 marks

**3**. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example,  $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ ].

4 marks

4 marks

2 marks

2 marks

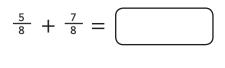
improper fraction	mixed number
<u>14</u>	$4 \frac{1}{4}$
<u>17</u> 4	$2 \frac{1}{4}$
<u>15</u> 4	$3 \frac{3}{4}$
<u>9</u> 4	$3\frac{1}{2}$

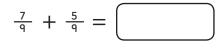
a) Draw lines to match the following improper fractions and mixed numbers:

**b)** Complete the following table:

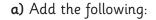
Improper fraction	Mixed number
<u>12</u> 5	
<u>19</u> 6	
	$2\frac{7}{8}$
	$1\frac{1}{2}$

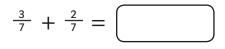
c) Add these fractions and write the answer as a mixed number:

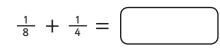


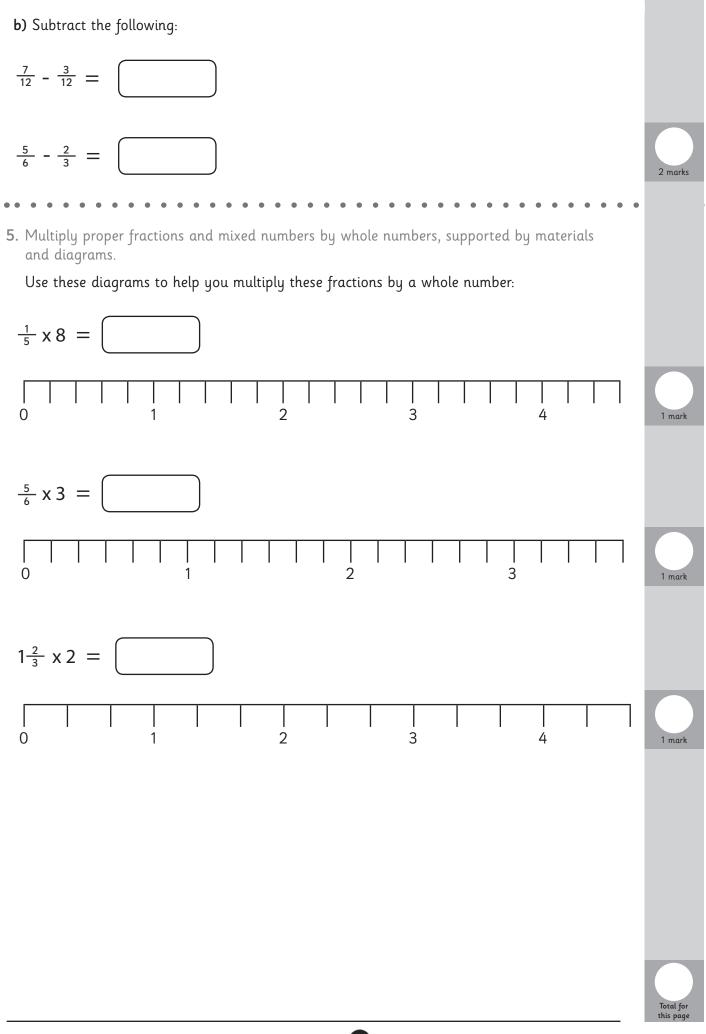


**4.** Add and subtract fractions with the same denominator, and denominators that are multiples of the same number.









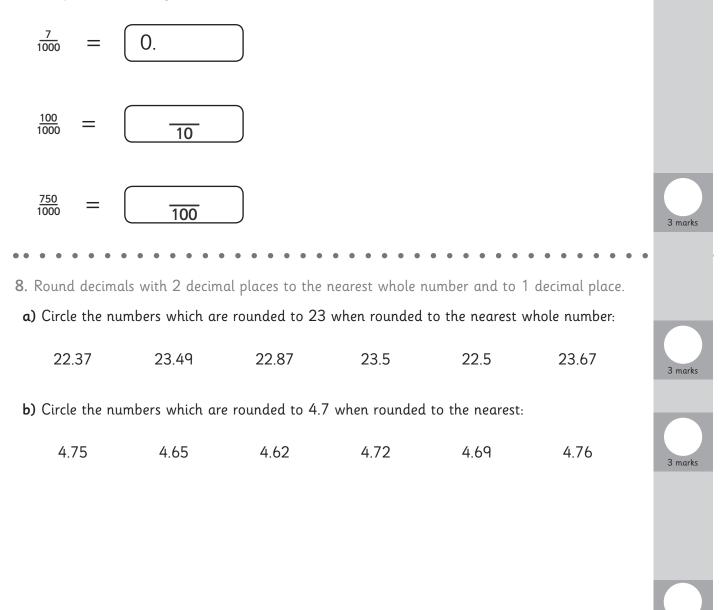
6. Read and write decimal numbers as fractions

Complete this table, writing decimals as fractions and fractions as decimals:

decimals	fractions
	<u>16</u> 100
0.07	
0.9	
	<u>87</u> 100

**7.** Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.

## Complete the missing boxes:



4 marks

73       4         73       3.7         .92       28.9         .92       29         .92       29         ead, write, order and compare numbers with up to 3 d         Jse the symbols < or > to compare these decimals: $< or >$ 5.54       45.45         03.02       203.1         81.78       781.779         067.67       6067.7         order these numbers from largest to smallest;         55.005       550.05         gest	Number	Rounded to the ne (e.g. tenth, whole ne		Number to it is rou	
3.92 $28.9$ $3.92$ $29$ $3.92$ $29$ Read, write, order and compare numbers with up to 3 dUse the symbols $<$ or $>$ to compare these decimals: $<  or  >$ $45.54$ $45.45$ $203.02$ $203.1$ $781.78$ $781.779$ $5067.67$ $6067.7$ order these numbers from largest to smallest; $55.005$ $550.05$ $50.05$ $50.05$	73	,		1	itaca
8.9229Read, write, order and compare numbers with up to 3 dUse the symbols $<$ or $>$ to compare these decimals: $<$ or $>$ 45.5445.45203.02203.1781.78781.7796067.676067.7order these numbers from largest to smallest; 55.0055055.005550.0550	3.73			3.7	
Read, write, order and compare numbers with up to 3 dUse the symbols < or > to compare these decimals: $< or >$ $45.54$ $203.02$ $203.1$ $781.78$ $6067.67$ $6067.67$ $6067.7$ order these numbers from largest to smallest; $55.005$ $55.005$ $550.05$ $50.05$	28.92			28.9	
Use the symbols < or > to compare these decimals: $< or >$ $45.54$ $45.45$ $203.02$ $203.1$ $781.78$ $781.779$ $6067.67$ $6067.7$ order these numbers from largest to smallest; $55.005$ $55.005$ $550.05$ $rrgest$	28.92			29	
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6067.67 6067.7 order these numbers from largest to smallest; 55.005 550.05 50 .rgest	203.02		20	)3.1	_
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rgest	6067.67				
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• • • • • • • • • • • • • • • • • • • •	6067.67 ) order these nu		60 est to s	067.7	50.5
Solve problems involving number up to 3 decimal place	6067.67 ) order these ni 55.005		60 est to s	067.7	50.5
eene prosiente atterving nameer ap to o accunat place	6067.67 ) order these ni 55.005		60 est to s	067.7	50.5
	6067.67 ) order these ni 55.005 argest	5 550	60 est to s 0.05	067.7 smallest;	) • • •
a) A recipe says Jack needs 1 1/2 pints of stock, but he	6067.67 ) order these nu 55.005 argest .Solve problem <b>1 pint = 0</b> .1	5 550 s involving numbe 568 litres	60 est to s 0.05	067.7 smallest; o 3 decimal	l place
How much stock should he use?	6067.67 •) order these no 55.005 largest •	5 550 s involving numbe 568 litres Jack needs 1 1/	60 est to s 0.05 er up te 2 pint	067.7 smallest; o 3 decimal	l places.
How much stock should he use?	6067.67 b) order these no 55.005 largest J.Solve problem 1 pint = 0.1 a) A recipe sau	5 550 s involving numbe 568 litres Jack needs 1 1/	60 est to s 0.05 er up te 2 pint	067.7 smallest; o 3 decimal	l places.
How much stock should he use?	6067.67 b) order these no 55.005 largest J.Solve problem 1 pint = 0.1 a) A recipe sau	5 550 s involving numbe 568 litres Jack needs 1 1/	60 est to s 0.05 er up te 2 pint	067.7 smallest; o 3 decimal	l places.
How much stock should he use?	6067.67 b) order these no 55.005 largest J.Solve problem 1 pint = 0.1 a) A recipe sau	5 550 s involving numbe 568 litres Jack needs 1 1/	60 est to s 0.05 er up te 2 pint	067.7 smallest; o 3 decimal	l places.
How much stock should he use?	6067.67 order these no 55.005 rgest Solve problem <b>1 pint = 0</b> .1 a) A recipe sau	5 550 s involving numbe 568 litres Jack needs 1 1/	60 est to s 0.05 er up te 2 pint	067.7 smallest; o 3 decimal	l place

6

<b>b)</b> 1 gallon is 8 pints. How many litres is 1 gallon?

**11**.Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction.

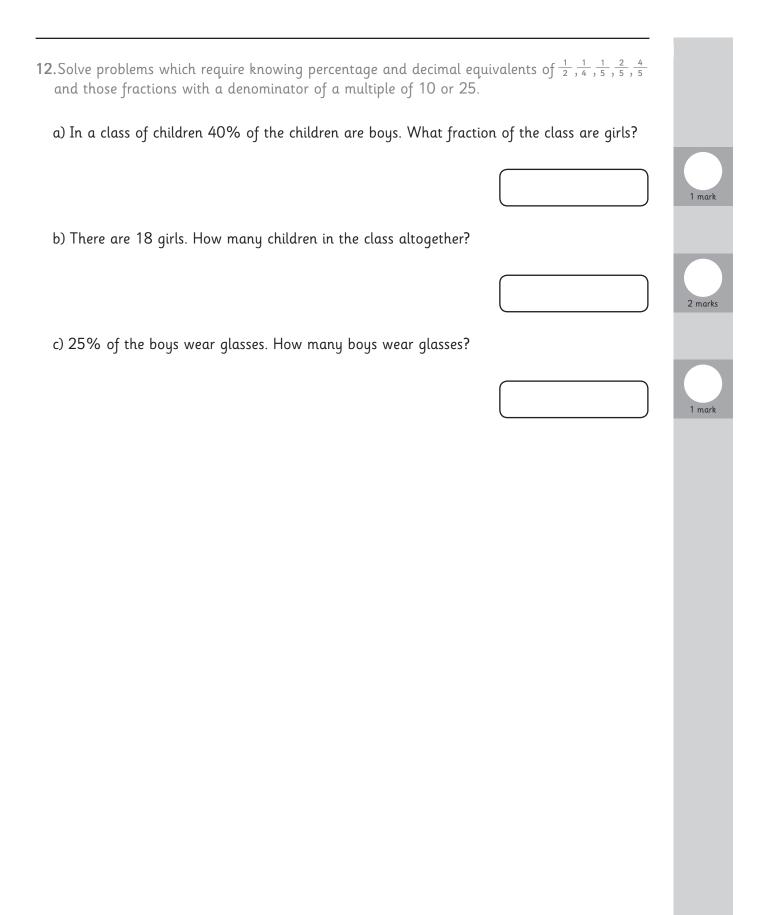
percentage	fraction	decimal
		0.34
	<u>7</u> 10	
99%		
		0.06
	<u>46</u> 100	

Complete this table:



2 marks











question	answer	marks	notes					
1. Compare	and order fractions whose denominators are	e all multip	ples of the same number.					
a	4/5 $<$ $9/10$ $7/12$ $>$ $3/6$ $3/4$ $=$ $9/12$	3						
b	<sup>2</sup> / <sub>3</sub> <sup>5</sup> / <sub>6</sub> <sup>21</sup> / <sub>24</sub> <sup>11</sup> / <sub>12</sub>	1						
<b>2.</b> Identify, hundredths	name and write equivalent fractions of a give	n fraction	, represented visually, including tenths and					
a	Two fractions from: 1⁄3 2⁄6 3⁄9 4⁄12 5⁄15	2	While other answers are equivalent to <sup>6</sup> ⁄18, they are not represented by the diagram.					
b	Any fractions equivalent to <b>3⁄4</b> eg. 3⁄4, 6⁄8, 9⁄12 <sup>30</sup> ⁄40 <sup>60</sup> ⁄80 <sup>300</sup> ⁄400	3	3 marks for 3 correct fractions. 2 marks for 2 correct fractions and no errors. 1 mark for 2 correct fractions and 1 error, or 1 correct and no error.					
-	e mixed numbers and improper fractions and cal statements > 1 as a mixed number [for exa							
a	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	4						
b	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	4						
С	1	2						
<b>4.</b> Add and number.	<b>4.</b> Add and subtract fractions with the same denominator, and denominators that are multiples of the same number.							
а	$\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$ $\frac{1}{8} + \frac{1}{4} = \frac{3}{8}$	2						
b	$7_{12} - 3_{12} = 4_{12}$ $5_{6} - 2_{3} = 1_{6}$	2						



a23.49, 22.87, 22.53errors. 1 mark for 2 correct numbers and 1 or 1 correct and no error.b4.65, 4.72, 4.693ab4.65, 4.72, 4.693errors.	question		answer		marks	notes	
$5\% \times 3 = 2 \frac{3}{6} \text{ or } 2 \frac{1}{2}$ $3$ 6. Read and write decimal numbers as fractions [for example, 0.71 = 71/100]. $\boxed{\text{Decimals}  Fractions} \\ 0.16  16/1000 \\ 0.07  71/100 \\ 0.9  91/100 \\ 0.87  87/100 \\ 0.87  87/100 \\ 0.9  91/100 \\ 0.87  87/100 \\ 0.9  91/100 \\ 0.87  87/100 \\ 0.9  91/100 \\ 0.87  87/100 \\ 0.9  91/100 \\ 0.87  87/100 \\ 0.9  91/100 \\ 0.87  87/100 \\ 0.9  91/100 \\ 0.87  87/100 \\ 0.9  91/$	·					s, supported by materials and diagrams.	
1 $\frac{2}{3} \times 2 = 3 \frac{1}{3}$ 6. Read and write decimal numbers as fractions (for example, $0.71 = \frac{7}{100}$ ).Decimals Fractions 0.16 19/100 0.07 7/100 0.9 9/10 or 9/100 0.87 87/1007. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.0.007 1/10 7/100 0.8738. Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place.a23.49, 22.87, 22.53b4.65, 4.72, 4.693b4.65, 4.72, 4.693cNumber 3.73Number to the nearestNumberNumber to which it is roundeda2.3.73144aaccept whole numbers and rorr.		$\frac{1}{5} \times 8 = 1$	3⁄5				
$1 \frac{2}{3} \times 2 = 3 \frac{1}{3}$ A6. Read and write decimal numbers as fractions [for example, $0.71 = 7\%0$ ]. $0.6 + 10\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.07 + 7\%00 + 0.007 + 7\%00 + 0.007 + 7\%00 + 0.007 + 7\%00 + 0.007 + 7\%00 + 0.007 + 7\%00 + 0.007 + 7\%00 + 0.007 + 7\%00 + 0.007 + 7\%00 + 0.007 + 0.00$		5∕6 x 3 = 2	3/6 or 2 1/2		3		
Decimals         Fractions           0.16         16/100           0.7         7/100           0.9         9/10 or 90/100           0.87         87/100           A recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.           0.007         1/10           1/10         87/100           0.007         87/100           1/10         87/100           0.007         3           1/10         87/100           0.007         3           1/10         87/100           3           0.007         3           1/10         3           3           1/10         3           3           3           3           3           3           3           3           3           3           3           3           3           3           3           3 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>							
0.16       16/100         0.07       7/100         0.9       9/10 or 90/100         0.87       87/100         4         0.007         1/10       3         0.007         1/10       3         3         8. Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place.         3 marks for 3 correct numbers.         a a 23.49, 22.87, 22.5         a 23.49, 22.87, 22.5         a a 23.49, 22.87, 22.5         b 4.65, 4.72, 4.69         b 4.65, 4.72, 4.69         a marks for 3 correct numbers. 2 marks for 2 correct numbers and errors. 1 mark for 2 correct numbers. 2 marks for 2 correct numbers and errors. 1 mark for 2 correct numbers. 2 marks for 2 correct numbers. 2 marks for 2 correct numbers. 2 marks for 2 correct numbers. 3 marks for 2 correct numbers. 1 mark for 2 correct numbers. 3 marks for 2 correct numbers and e	6. Read and	d write decimal	l numbers as f	ractions [for exa	ample, 0.71	1 = 71/100 ].	
0.07       7/100       4         0.07       7/100       4         0.9       9/10 or 90/100       8         0.87       87/100       4         7. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.         0.007       3         10.07       3         0.007       3         10.07       3         10.007       3         10.007       3         10.007       3         10.007       3         10.007       3         10.007       3         10.007       3         10.007       3         10.007       3         10.007       3         10.007       3         10.007       3         10.007       3         10.01       3         10.01       3.7         10.01       3.7         10.01       3.7         10.01       3.7		Decimals	Fract	tions	]		
0.9       9/10 or 99/100         0.87       87/100         7. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.         0.007       3         1/10       3         75/100       3         8. Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place.         a       23.49, 22.87, 22.5       3         a       23.49, 22.87, 22.5       3         b       4.65, 4.72, 4.69       3         b       4.65, 4.72, 4.69       3         c       Number       Rounded to the nearest whole number to which it is rounded in the nearest whole number to tenths for 2 correct numbers.         c       Number       Rounded to the nearest is number to which it is rounded in the nearest is number to which it is rounded in the nearest is number to which it is rounded in the nearest is number to which it is rounded is number to tenth as appropriate.		0.16	16/100	0			
0.87       87/100         7. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.         0.007       3         1/10       3         75/100       3         8. Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place.         a       23.49, 22.87, 22.5         b       3 marks for 3 correct numbers. 2 marks for 2 correct numbers and 1 or 1 correct and no error.         b       4.65, 4.72, 4.69         c       Number         Rounded to the nearest whole number to which it is rounded       3 marks for 2 correct numbers. 2 marks for 2 correct numbers and 1 or 1 correct and no error.         c       Number       Rounded to the nearest which it is rounded to the nearest which it is rounded       3 marks for 2 correct numbers and 1 or 1 correct and no error.         c       Number       Rounded to the nearest which it is rounded to the nearest which it is rounded       4 accept whole number or tenth as appropriate.		0.07	7/100		4		
7. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.         0.007       1/10         1/10       3         8. Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place.         a       23.49, 22.87, 22.5         b       4.65, 4.72, 4.69         b       4.65, 4.72, 4.69         c       Number         Rounded to the nearest which it is rounded to the nearest which it is rounded         3.73       0.1         3.73       0.1		0.9	9⁄10	or <sup>90</sup> /100			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		0.87	87/10	0			
$\frac{1}{75}$ (no33 <b>8.</b> Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place.3 a marks for 3 correct numbers. 2 marks for 2 correct numbers and errors. 1 mark for 2 correct numbers and 1 or 1 correct and no error.a $23.49, 22.87, 22.5$ 33 a marks for 2 correct numbers and 1 or 1 correct and no error.b $4.65, 4.72, 4.69$ 33 marks for 2 correct numbers and 1 or 1 correct and no error.bNumberRounded to the nearestNumber to which it is rounded4cNumberRounded to the nearestNumber to which it is rounded4cNumberRounded to the nearestNumber to which it is rounded4aaccept whole number or tenth as appropriate.	<b>7.</b> Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.						
75/100       Image: second secon							
8. Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place.         a       23.49, 22.87, 22.5       3       3 marks for 3 correct numbers. 2 marks for 2 correct numbers and errors. 1 mark for 2 correct numbers and 1 or 1 correct and no error.         b       4.65, 4.72, 4.69       3       3 marks for 3 correct numbers. 2 marks for 2 correct numbers and 1 or 1 correct and no error.         b       4.65, 4.72, 4.69       3       3 marks for 3 correct numbers. 2 marks for 2 correct numbers. 2 marks for 2 correct numbers. 2 marks for 2 correct numbers and 1 or 1 correct and no error.         c       Number       Rounded to the nearest       Number to which it is rounded       4       4         accept whole number or tenth as appropriate.       accept whole number or tenth as appropriate.       1					3		
a23.49, 22.87, 22.533 marks for 3 correct numbers. 2 marks for 2 correct numbers and errors. 1 mark for 2 correct numbers and 1 or 1 correct and no error.b4.65, 4.72, 4.6933 marks for 3 correct numbers. 2 correct numbers and errors. 1 mark for 2 correct numbers and errors. 1 mark for 2 correct numbers and errors. 1 mark for 2 correct numbers. 2 marks for 2 correct numbers and errors. 1 mark for 2 correct numbers and errors. 1 mark for 2 correct numbers and 1 or 1 correct and no error.bA.65, 4.72, 4.693cNumberRounded to the nearestNumberNumber to which it is roundedAc3.73143.730.13.7						her and to 1 decimal place	
a23.49, 22.87, 22.532 marks for 2 correct numbers and errors. 1 mark for 2 correct numbers and 1 or 1 correct and no error.b4.65, 4.72, 4.6933 marks for 3 correct numbers. 2 marks for 2 correct numbers and errors. 1 mark for 2 correct numbers and errors. 1 mark for 2 correct numbers and 1 or 1 correct and no error.b4.65, 4.72, 4.693cNumberRounded to the nearestNumberNumber to which it is rounded1c3.73143.730.13.7	6. Round decimals with 2 decimal places to the hearest						
b4.65, 4.72, 4.6932 marks for 2 correct numbers and errors. 1 mark for 2 correct numbers and 1 or 1 correct and no error.cNumberRounded to the nearestNumber to which it is rounded4accept whole number or tenth as appropriate.	а	23.49, 22.87, 22.5			3	2 marks for 2 correct numbers and no errors. 1 mark for 2 correct numbers and 1 error,	
NumberRounded to the nearestwhich it is rounded3.73143.730.13.7	b 4.65, 4.72, 4.69				3	2 marks for 2 correct numbers and no errors. 1 mark for 2 correct numbers and 1 error,	
3.73 <b>0.1</b> 3.7 <sup>4</sup> appropriate.		Number   Rounded to   which it is					
<b>5.75 0.1 5.7</b>	С		-		4		
			<u> </u>				
28.92 1 29							

10



question		answer		marks	notes	
9. Read, write, order and compare numbers with up to 3					places.	
a	45.54 203.02 781.78	> < >	45.45 203.1 781.779	4		
b	6067.67 550.055 5	50.05 55.0	6067.7       005     50.505	1		
10. Solve pr	roblems involvir	ng number up	to 3 decimal pla	ces.		
а	0.8521			1		
b	4.5441			2	Award 1 mark for correct method where there is only one mistake in calculation.	
					nt relates to `number of parts per 100', s a decimal fraction.	
	34%	34/10	0.34	]	allow 0.50	
	70%	7⁄10	0.7			
	99% 6%	<sup>99</sup> /100	0.99	5		
	6% 46%	6/100         0.06           46/100         0.46			allow 0.80	
<b>12.</b> Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 3/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25.						
а	3/5			1	1 mark for an incorrect answer if method is correct and there is only 1 mistake in calculating	
b	30			2	-	
с	3			1	1 mark can be awarded if using an incorrect number of boys and the answer is calculated correctly.	
				Total 60		

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