Name:

Maths Assessment Year 4 Term 2: Fractions

1. Recognise and show, using diagrams, families of common equivalent fractions.
2. Count up and down in hundredths.
3. Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.
4. Add and subtract fractions with the same denominator.
5. Recognise and write decimal equivalents of any number of tenths or hundreds.
6. Recognise and write decimal equivalents to 1/4 , 1/2 , 3/4.
7. Find the effect of dividing a one or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
8. Round decimals with 1 decimal place to the nearest whole number.
9. Compare numbers with the same number of decimal places up to 2 decimal places.
10. Solve simple measure and money problems involving fractions and decimals to 2 decimal places.

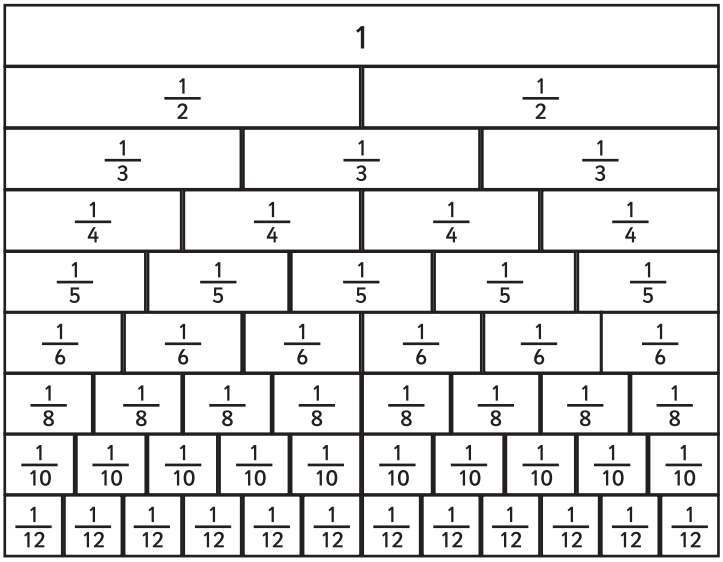
Name: Date:

/50 total marks

Maths Assessment Year 4 Term 2: Fractions

1. Recognise and show, using diagrams, families of common equivalent fractions.

a) Use the fraction wall to find equivalent fractions:



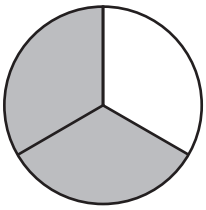
$\frac{2}{3} = \_\_\_\_$ 1 mark

$\frac{3}{4} = \_\_\_\_$ 1 mark

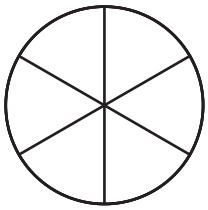
$\frac{1}{2} = \_\_\_\_$ 1 mark

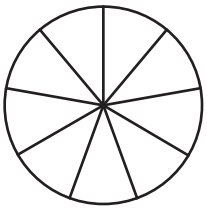
$\frac{1}{6} = \_\_\_\_$ 1 mark

b) Shade in the shapes to show $\frac{2}{3}$ on each shape and write the equivalent fraction underneath:



$\frac{2}{3}$





2 marks

2. Count up and down in hundredths.

Complete these sequences of numbers:

4.06	4.07	4.08			
$\frac{89}{100}$	$\frac{88}{100}$	$\frac{87}{100}$			
5.03	5.02	5.01			
$\frac{8}{100}$	$\frac{9}{100}$	$\frac{10}{100}$			

4 marks

Total for this page

3. Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.

a) Angel has a 2 litre bottle of lemonade. She shares some with her friends and estimates that $\frac{3}{4}$ of the bottle is left. How much lemonade has she poured out?

2 marks

b) The school manager needs to buy ink for the school photocopier. She can buy a large pack which will print 2000 pages or a medium pack that will print $\frac{3}{5}$ of the amount the large pack will print.

i. How many pages will the medium pack print? Show your working out.

2 marks

ii. If the large pack costs £10 and the medium pack £7, which is the most economical to buy?

2 marks

Total for this page

4. Add and subtract fractions with the same denominator.

$\frac{4}{9} + \frac{2}{9} =$ ☐ $\frac{4}{10} + \frac{3}{10} =$ ☐

$\frac{4}{7} - \frac{2}{7} =$ ☐ $\frac{4}{5} - \frac{3}{5} =$ ☐

4 marks

5. Recognise and write decimal equivalents of any number of tenths or hundreds.

Fill in the missing boxes:

fraction	decimal
$\frac{5}{10}$	
	0.7
$\frac{3}{100}$	
	0.09
$\frac{67}{100}$	
	0.98

6 marks

6. Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$

Write the decimals that match the following fractions:

$\frac{1}{4} =$ ☐

$\frac{3}{4} =$ ☐

$\frac{1}{2} =$ ☐

1 mark

Total for this page

7. Find the effect of dividing a one or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.

Complete the table:

Number	Divide by	Answer	Which digit represents the tenths in the answer?
45	÷10	4.5	5
79	÷10		
	÷100	0.03	
56		0.56	
2		0.2	

4 marks

8. Round decimals with 1 decimal place to the nearest whole number.

Draw a line to match each of the following decimals to the nearest whole number:

14.9	
14.2	14
15.6	15
15.3	16
16.2	

5 marks

9. Compare numbers with the same number of decimal places up to 2 decimal places.

a) Use the symbols < or > to compare these decimals:

11.78		11.09
2.5		2.4
63.17		63.71

3 marks

Total for this page

b) Place these 3 numbers into the table to complete the table.

26.47 25.79 24.06

25.52	<	
24.65	>	
26.43	<	

3 marks

10. Solve simple measure and money problems involving fractions and decimals to 2 decimal places.

A group of children take part in a long jump competition.

	Jump 1	Jump 2
Jonny	2.35m	2.07m
Tom	2.45m	2.53m
Layla	2.18m	2.11m
Ricardo	2.40m	1.87m
Amina	2.67m	2.49m
Steph	2.05m	1.97m

a) Who made the longest jump?

1 mark

b) Who had the smallest difference between their two jumps?

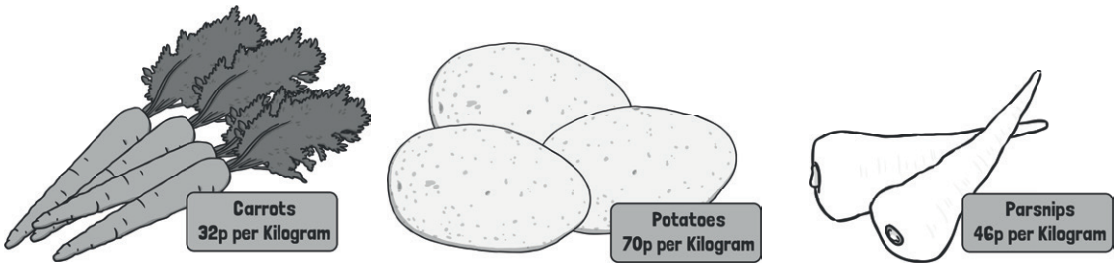
1 mark

c) Who had the largest difference between jumps? Show your working out.

2 marks

Total for this page

Potatoes, carrots and parnsips are sold for the following prices per kilogram:



d) Martha buys 2kg potatoes, $\frac{1}{4}$ kg of carrots and $\frac{1}{2}$ kg of parsnips. How much does she spend?

2 marks

e) What is the total weight of the vegetables Martha buys in kilograms as a decimal?

kg

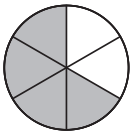
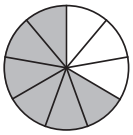
1 mark

f) The price of the potatoes goes down by $\frac{1}{5}$. What is the new price per kilogram?

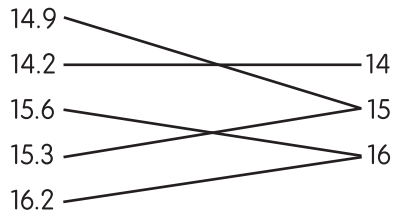
1 mark

2 marks

Total for this page

question	answer	marks	notes
1. Recognise and show, using diagrams, families of common equivalent fractions.			
a	$\frac{4}{6}$ $\frac{6}{8}$ $\frac{2}{4}$ or $\frac{3}{6}$ or $\frac{4}{8}$ $\frac{2}{12}$	4	
b	 $\frac{4}{6}$  $\frac{6}{9}$	2	1 mark each
2. Count up and down in hundredths.			
	4.06 4.07 4.08 **4.09** **4.1** **4.11** $\frac{89}{100}$ $\frac{88}{100}$ $\frac{87}{100}$ $\mathbf{\frac{86}{100}}$ $\mathbf{\frac{85}{100}}$ $\mathbf{\frac{84}{100}}$ 5.03 5.02 5.01 **5** **4.99** **4.98** $\frac{8}{100}$ $\frac{9}{100}$ $\frac{10}{100}$ $\mathbf{\frac{11}{100}}$ $\mathbf{\frac{12}{100}}$ $\mathbf{\frac{13}{100}}$	4	Allow 4.10 Allow 5.0 or 5.00
3. Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.			
a	500ml or $\frac{1}{2}$ litre	2	As the question uses the phrase estimate, allow answers that are in a reasonable range of estimation. 1 mark for any correct method but incorrect calculations.
b i.	1200 pages	2	2 marks for the correct answer. 1 mark for correct method and only 1 mistake.
b ii.	Large	2	If correct answer 2 marks. If working out shows a sensible way of working out, but the answer is incorrect award 1 mark.

<table>
<tr><th>question</th><th>answer</th><th>marks</th><th>notes</th></tr>
<tr><td colspan="4">4. Add and subtract fractions with the same denominator.</td></tr>
<tr><td></td><td>$\frac{4}{9} + \frac{2}{9} = \boxed{\frac{6}{9}}$ $\quad \frac{4}{10} + \frac{3}{10} = \boxed{\frac{7}{10}}$
$\frac{4}{7} - \frac{2}{7} = \boxed{\frac{2}{7}}$ $\quad \frac{4}{5} - \frac{3}{5} = \boxed{\frac{1}{5}}$</td><td>4</td><td>Allow $\frac{2}{3}$</td></tr>
<tr><td colspan="4">5. Recognise and write decimal equivalents of any number of tenths or hundreds.</td></tr>
<tr><td></td><td><table>
<tr><td>$\frac{5}{10}$</td><td>0.5 or 0.50</td></tr>
<tr><td>$\frac{7}{10}$</td><td>0.7</td></tr>
<tr><td>$\frac{3}{100}$</td><td>0.03</td></tr>
<tr><td>$\frac{9}{100}$</td><td>0.09</td></tr>
<tr><td>$\frac{67}{100}$</td><td>0.67</td></tr>
<tr><td>$\frac{98}{100}$</td><td>0.98</td></tr>
</table></td><td>6</td><td>Accept equivalent fraction forms.</td></tr>
<tr><td colspan="4">6. Recognise and write decimal equivalents to ¼, ½, ¾.</td></tr>
<tr><td></td><td>$\frac{1}{4} = 0.25$
$\frac{3}{4} = 0.75$
$\frac{1}{2} = 0.5$</td><td>1</td><td></td></tr>
<tr><td colspan="4">7. Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.</td></tr>
<tr><td></td><td><table>
<tr><td>79</td><td>÷10</td><td>7.9</td><td>9</td></tr>
<tr><td>3</td><td>÷100</td><td>0.03</td><td>0</td></tr>
<tr><td>56</td><td>÷100</td><td>0.56</td><td>5</td></tr>
<tr><td>2</td><td>÷10</td><td>0.2</td><td>2</td></tr>
</table></td><td>4</td><td>1 mark for each correct row.</td></tr>
</table>

question	answer	marks	notes
8. Round decimals with 1 decimal place to the nearest whole number.			
a		5	1 mark for each correct match.
9. Compare numbers with the same number of decimal places up to 2 decimal places.			
a	11.78 **>** 11.09 2.5 **>** 2.4 63.17 **<** 63.71	3	1 mark for each correct
b	25.52 > **25.79** 24.65 > **24.06** 26.43 < **26.47**	3	
10. Solve simple measure and money problems involving fractions and decimals to 2 decimal places.			
a	Amina (2.67m)	1	Answer must be Amina not just the number.
b	Layla (0.07m)	1	No working needs to be shown. Answer must be Layla, not just the number.
c	Ricardo (0.53m)	2	2 marks for correct answer. 1 mark for correctly working out the difference between Jonny, Amina and Ricardo's jumps. (The others are possible mentally).
d	£1.71	2	2 marks for the correct answer. Allow 1 mark for correct method with 1 mistake in calculation.
e	2.75kg	1	Do not allow 2 $\frac{3}{4}$ kg.
f	56p	1	
		Total 50	