

# Fractions, Decimals and Percentages SATs Question Pack

25 KS2 SATs Questions and Mark Scheme: Fractions, Decimals and Percentages



Name:	Class:
School:	Score:

## Instructions

You may not use a calculator to answer any questions in this test.

#### **Questions and answers**

- Follow the instructions for each question.
- Work as quickly and as carefully as you can.
- If you need to do working out, you can use the space around the question.
- For these questions, you may get a mark for showing your method.
- If you cannot do a question, go on to the next one.
- You can come back to it later, if you have time.
- If you finish before the end, go back and check your work.

### Marks

• The number under each line at the side of the page tells you the maximum number of marks for each question.

1 What fraction of the shape is shaded?





3 Write the missing numbers on the number line.



4 Write this fraction in its simplest form.

<u>42</u> 56



1 mark



1 mark





1 mark

4



5

17 
$$\frac{7}{3} \times \frac{9}{14} =$$

—	$\square$
	1 mark

#### **18** Look at this scaled drawing of a school playground

Climbing	
Frame	
	Playing Field
Netball Courts	

a What percentage of the playground is field space?



b How much of the playground does the netball courts take up? Write your answers as a fraction.



**c** What amount of playground is taken up by the climbing frame? Write your answer as a decimal.

 	1 mark

# 19 $3\frac{2}{3} - 1\frac{3}{4} =$

$\bigcup$
1 mark

1 mark

7

20 There are 31 children in the class. Tia says, "40% of the class are boys." Is this possible? Why? Why not?



1 mark

22 At the sweet factory, 3600 sweets are made each hour.  $\frac{5}{9}$  of the sweets are lollipops. 20% of the sweets are gummy bears and the rest is chocolate bars. How many chocolate bars are manufactured each hour?



23 During a sale, prices were reduced by 20%. If Jack paid £132 for a new phone, what was the price of the phone before the sale?

1 mark

24 The population of the UK is 65.215 million. The population of USA is 5 times this size. What is the population of the USA? Round your answers to 2 decimal places.

	$\square$
)	$ \bigcirc $
	1 mark

Pippa had some money. She spent  $\frac{1}{3}$  of it on a new pencil case. She then spent  $\frac{1}{2}$  of what she had left on a new set of pens. Her pens cost her £18. How much money did Pippa have to start with?

1 mark

### Mark Scheme

The instructions and principles of this mark scheme closely follow the guidance in the 2016 national curriculum tests.

We have deliberately not set a limited time for the test paper as a teacher may want to very it according to the standard individual children are working at.

The national curriculum test allows 40 minutes to complete this test.

## Answers

Question Number	Requirement	Mark	Acceptable answer or additional guidance	Content Domain Ref	NC strand
1	<u>1</u> 4	1m	Accept $\frac{1}{4}$ or equivalent	4F2	Fractions
2	Any 8 hexagons shaded in	1m		3F2	Fractions
3	Both answers are needed to obtain one mark $1$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ 1	1m	Accept equivalent of $\frac{3}{4}$	5F3	Fractions
4	<u>3</u> 4	1m	Do Not Accept <u>6</u> 8	6F2	Fractions
5	$4\frac{1}{2}$	1m	Do Not Accept $4\frac{3}{6}$	5F2a	Fractions
6	<u>25</u> 30	1m		6F2	Fractions
7	$\frac{3}{4}$	1m		6F3	Fractions

#### Key Stage 2 SATs Mark Scheme | Fractions, Decimals and Percentage

Question Number	Requirement	Mark	Acceptable answer or additional guidance	Content Domain Ref	NC strand
8	<u>13</u> 15	1m	Accept equivalence	5F4	Fractions
9	1,108ml	1m		4F10a	Fractions
10	4	1m	Accept $\frac{4}{1}$	5F5	Fractions
11	<u>2</u> 8	1m	Accept equivalence	3F10	Fractions
12	$\frac{16}{100}$	1m	Accept $\frac{4}{25}$	5F6a	Fractions
13	<u>10</u> 9	1m	Accept $1\frac{1}{9}$	6F4	Fractions
14	61.04	1m		6F9b	Fractions
15	Circled in any order 10 $\frac{3}{2}$ 0.2	1m	<b>Do Not Accept</b> if more than three numbers are circled	6F11	Fractions
16	273kg	1m		6R2	Ratio
17	<u>3</u> 2	1m	Accept $1\frac{1}{2}$	5Fa	Fractions
18a	40%	1m	<b>Do Not Accept</b> fraction or decimal equivalents	5F11	Fractions
18b	$\frac{3}{10}$ or $\frac{30}{100}$	1m	<b>Do Not Accept</b> fraction or decimal equivalents	5Fa	Fractions

#### Key Stage 2 SATs Mark Scheme | Fractions, Decimals and Percentage

Question Number	Requirement	Mark	Acceptable answer or additional guidance	Content Domain Ref	NC strand
18c	0.1	1m	<b>Do Not Accept</b> fraction or percentage equivalents	5F11	Fractions
19	$1\frac{11}{12}$	1m	Accept $\frac{23}{12}$	6F4	Fractions
20	Not possible as 40% of 31 is 12.4 and you cannot not have 12.4 children who are boys.	1m	Accept similar explanations	5F12	Fractions
21	<u>3</u> 35	1m		6F5b	Fractions
22	880 chocolate bars	1m		6R2/4F10a	Ratio/Fractions
23	£165	1m	<b>Do Not Accept</b> £165p	5F12	Fractions
24	326.08	1m		5F10/6F10	Fractions
25	Award <b>two</b> marks for the correct answer of £54	Up to 2m	Answer need not be obtained for the award of <b>one</b> mark.	6R4	Ratio
	If answer is incorrect, award one mark for evidence of an appropriate method with no more than one arithmetic error e.g. $\frac{2}{6} = £18$ $18 \times 3 = £52 \text{ (error)}$				

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