



THIRD SPACE  
LEARNING

# Year 6 Fractions, Decimals and Percentages Practice Test

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



First name	
Last name	
Class	
Score	/ 25

## Instructions

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

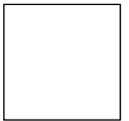
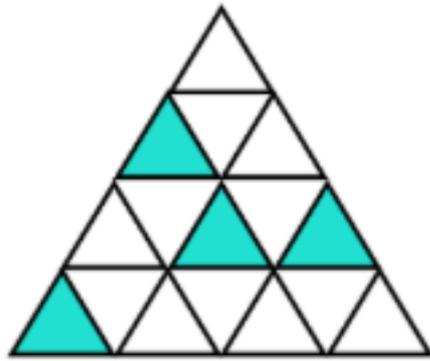
## Questions and answers

- 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.
- Do not write over any barcodes.
- 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

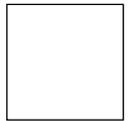
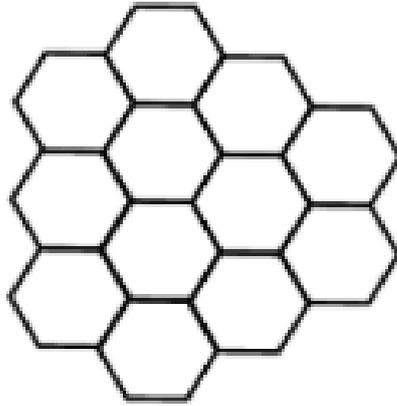
- The number under each line at the side of the page tells you the maximum number of marks for each question.

1 What fraction of the shape is shaded?



1 mark

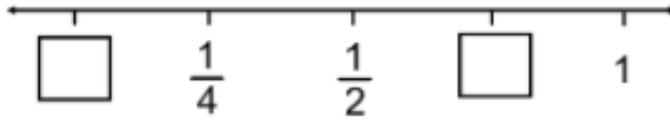
2 Shade in  $\frac{2}{3}$  of this pattern



1 mark

3

Write the missing numbers on the **number line**



1 mark

4 Write this fraction in its simplest form

$$\frac{42}{56}$$

1 mark

5  $\frac{27}{6}$  Write this improper fraction as a mixed number  
(in the simplest form)

1 mark

6 Find an equivalent fractions to represent  $\frac{5}{6}$  as thirtieths

1 mark

7 Put these fractions in descending order:

$1 \frac{3}{6}$

$1 \frac{1}{12}$

$1 \frac{2}{3}$

$1 \frac{3}{4}$

1 mark

8

$$\frac{9}{15} + \frac{4}{15} =$$

1 mark

9 Find  $\frac{3}{10}$  of 360ml

1 mark

10  $\frac{2}{3} \times 6 =$

1 mark

11 Frankie has  $\frac{7}{8}$  of a pizza left. Perry eats  $\frac{5}{8}$  of the pizza.

How much pizza has Frankie got now?

1 mark

12 Write 0.16 as a fraction

1 mark

13

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

1 mark

14  $7.63 \times 8 =$

1 mark

15 Circle **three** numbers that add up to 1

$\frac{1}{4}$    0.5   10%    $\frac{7}{10}$    15%   0.2

1 mark

16 Find 35% of 780kg

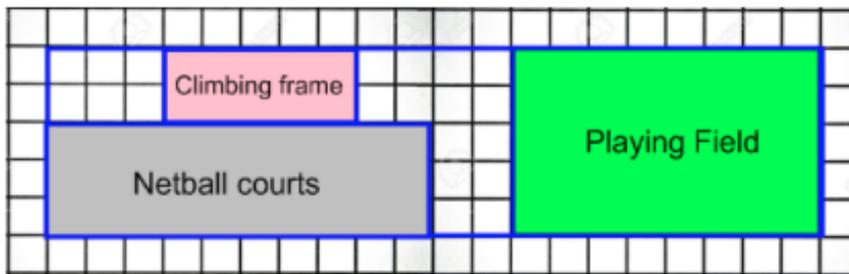
1 mark

17

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

1 mark

18 Look at this scaled drawing of a school playground



- What percentage of the playground is field space?
- How much of the playground does the netball courts take up? Write your answers as a fraction.
- What amount of playground is taken up by the climbing frame? Write your answer as a decimal.



1 mark

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

1 mark

20

There are 31 children in the class.

Tia says, "40% of the class are boys."

Is this possible? Why? Why not?

1 mark

21

$$\frac{3}{7} \div 5 =$$

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?

1 mark

- 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**

1 mark

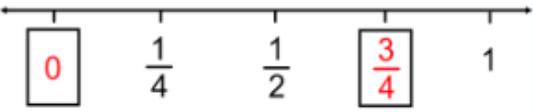
- 25 Pippa had some money. She spent  $\frac{1}{3}$  of it on a new pencil case. She then spent  $\frac{1}{2}$  of what she had left on a new set of pens. Her pens cost her £18. How much money did Pippa have to start with?

2 marks

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 vary it according to the standard individual children are working at.

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

Year 6 Fractions, Decimals and Percentages Practice Test  
 25 KS2 SATs Questions and Mark Scheme: Arithmetic and Reasoning

Q	Required answer	Mark	Acceptable answer or additional guidance	Content Domain Ref	NC strand
1	$\frac{1}{4}$	1m	<b>Accept</b> 4/16 or equivalent	4F2	Fractions
2	Any 8 hexagons shaded in 	1m		3F2	Fractions
3	<b>Both</b> answers are needed to obtain <b>one</b> mark 	1m	<b>Accept</b> equivalent of 3/4	5F3	Fractions
4	$\frac{3}{4}$	1m	<b>Do Not Accept</b> 6/8	6F2	Fractions
5	$4\frac{1}{2}$	1m	<b>Do Not Accept</b> 4 3/6	5F2a	Fractions
6	$\frac{25}{30}$	1m		6F2	Fractions
7	$1\frac{3}{4}$ $1\frac{2}{3}$ $1\frac{3}{6}$ $1\frac{1}{12}$	1m		6F3	Fractions

Year 6 Fractions, Decimals and Percentages Practice Test  
25 KS2 SATs Questions and Mark Scheme: Arithmetic and Reasoning

Q	Required answer	Mark	Acceptable answer or additional guidance	Content Domain Ref	NC strand
8	$\frac{13}{15}$	1m	<b>Accept</b> equivalence	5F4	Fractions
9	108ml	1m		4F10a	Fractions
10	4	1m	<b>Accept</b> 4/1	5F5	Fractions
11	$\frac{2}{8}$	1m	<b>Accept</b> equivalence	3F10	Fractions
12	$\frac{16}{100}$	1m	<b>Accept</b> 4/25	5F6a	Fractions
13	$\frac{10}{9}$	1m	<b>Accept</b> 1 1/9	6F4	Fractions
14	61.04	1m		6F9b	Fractions
15	Circled in any order 10% $\frac{7}{10}$ 0.2	1m	<b>Do Not Accept</b> if more than three numbers are circled	6F11	Fractions
16	273kg	1m		6R2	Ratio
17	$\frac{3}{2}$	1m	<b>Accept</b> 1 1/2	6Fa	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> percentage or decimal equivalents	5F11	Fractions
18c	0.1	1m	<b>Do Not Accept</b> fraction or percentage equivalents	5F11	Fractions

Year 6 Fractions, Decimals and Percentages Practice Test  
 25 KS2 SATs Questions and Mark Scheme: Arithmetic and Reasoning

Q	Required answer	Mark	Acceptable answer or additional guidance	Content Domain Ref	NC strand
19	$1\frac{11}{12}$	1m	<b>Accept</b> 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	<b>Accept</b> similar explanations	5F12	Fractions
21	$\frac{3}{35}$	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  If answer is incorrect, award <b>one</b> mark for evidence of an appropriate method with no more than one arithmetic error e.g.  $\frac{2}{6} = £18$ $18 \times 3 = £52$ (error)	Up to 2m	Answer need not be obtained for the award of <b>one</b> mark.	6R4	Ratio