Steady Steps Maths

FREE UNIT TEST · TOPIC 5

FREE SAMPLE · UNIT TEST A

Understanding Fractions

Unit Test A · 40 marks · about 40 minutes

GRADE 3



Common Core 3.NF.A.1–2

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Name _____ Date _____

UNIT TEST A

Understanding Fractions

40 marks · about 40 minutes · Common Core 3.NF.A.1–2

Name _____ **Date** _____

Instructions

- Answer **every** question in the space given.
- Show your working: in Sections B and C you get marks for your method, even if the final answer is wrong.
- The number in brackets, like [2], shows how many marks a question is worth.
- You have about 40 minutes. A calculator is **not** needed.
- Check your answers if you finish early.

Your score

Section	Questions	Marks	Your score
A · Quick questions	1–10	10	
B · Show your working	11–16	17	
C · Problem solving	17–18	13	
Total		**40**	

Percentage: _____ % 85%+ excellent · 65–84% good · 45–64% keep practising · below 45% revise the packs first

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SECTION A Quick questions

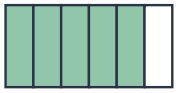
1 mark each · write your answer in the box

1 What fraction of the circle is shaded? [1]



Answer

2 What fraction of the bar is shaded? [1]



Answer

3 How many $\frac{1}{8}$ make $\frac{6}{8}$? [1]

Answer

4 Write as a fraction: seven eighths [1]

Answer

5 What fraction is at point A? [1]



Answer

6 Is this bar split into quarters? Write yes or no. [1]



Answer

7 $\frac{1}{4}$ is 1 of how many equal parts? [1]

Answer

8 What fraction is 4 parts, each $\frac{1}{6}$ of the whole? [1]

Answer

9 On a number line from 0 to 1, how many jumps of $\frac{1}{2}$ take you from 0 to 1? [1]

Answer

10 A pie is cut into 3 equal pieces. What fraction of the pie is one piece? [1]

Answer

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SECTION B Show your working

Marks are given for your method

11 Shade $\frac{6}{8}$ of the bar. Then write how many parts are **not** shaded. [2]



Answer

12 Write the missing fractions in the boxes. [3]



Answer

13 Mark $\frac{2}{6}$ on the number line with a dot. Explain how you found it. [3]



Answer

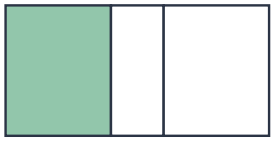
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14 A pizza is cut into 8 equal slices. Rana eats 2 slices. [3]
(a) What fraction of the pizza is one slice? (b) What fraction does Rana eat?
(c) What fraction is left?

Answer

15 Yara says 1 part of this bar is $\frac{1}{3}$ of the bar. Is that right? Explain. [2]



Answer

16 (a) Write the fractions at A and B. (b) Which point is closer to 1? [4]



Answer

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SECTION C Problem solving

Longer questions with several steps

17 A garden is split into 6 equal beds. Karim plants carrots in 2 beds and beans in 1 bed. The rest are flowers. [7]

(a) What fraction of the garden is carrots? (b) What fraction is beans? (c) How many beds are flowers?

(d) What fraction of the garden is flowers?

(e) Shade the bar to show the flower beds.



Answer

18 Use the number line from 0 to 1. [6]

(a) Split it into 8 equal parts by drawing marks. (b) Label each mark with its fraction.

(c) Mark $\frac{7}{8}$ with a dot. (d) How many jumps of $\frac{1}{8}$ are there from 0 to 1?



Answer

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Mark scheme

For parents · give the marks shown; method marks can be given even if the final answer is wrong

Tip: Give method marks generously when the working shows the right idea. If a mistake early on is carried through correctly, give the later marks. Accept any equivalent fraction or correct comparison unless the question asks for a particular denominator.

Q	Answer	Marks	How to award the marks
1	1/6	1	
2	5/6	1	
3	6	1	
4	7/8	1	
5	4/8	1	
6	no (the parts are not equal)	1	
7	4	1	
8	4/6	1	
9	2	1	
10	1/3	1	
11	any 6 parts shaded; 2 not shaded	2	1 mark for shading; 1 mark for the number.
12	2/8, 4/8, 5/8	3	1 mark for each box.
13	dot at the end of 2 jumps of 1/6 (at the 2nd mark after 0); e.g. “I split 0 to 1 into 6 equal parts and counted 2.”	3	1 mark for splitting into equal parts, 1 mark for the dot, 1 mark for the explanation.
14	(a) 1/8 (b) 2/8 (c) 6/8	3	1 mark each part.
15	No: the 3 parts are not equal, so one part is not 1/3.	2	1 mark for yes/no; 1 mark for the reason about equal parts.
16	(a) A = 1/8, B = 6/8 (b) B	4	(a) 3 marks: 1 for counting the parts, 1 for each fraction (accept 1 mark total if the denominator is wrong but consistent). (b) 1 mark.
17	(a) 2/6 (b) 1/6 (c) 3 (d) 3/6 (e) any 3 parts shaded	7	(a) 1 mark. (b) 1 mark. (c) 1 mark. (d) 2 marks. (e) 2 marks. Follow through.
18	(a) 7 tick marks, equally spaced (b) 1/8, 2/8, 3/8, 4/8, 5/8, 6/8, 7/8 (c) dot at 7/8 (d) 8	6	(a) 2 marks (roughly equal spacing is fine). (b) 2 marks (1 if one slip). (c) 1 mark. (d) 1 mark.

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What to revise

Circle the questions your child lost marks on, then go back to the matching part of the pack

Questions	Skill	Revise in	✓ / ×
1	Name the unit fraction	Pack 1 · Unit Fractions, Part 2	
2	Name the fraction	Pack 2 · Building Fractions from Unit Fractions, Part 1	
3, 8	Counting unit fractions	Pack 2 · Building Fractions from Unit Fractions, Part 2	
4, 14	Fractions in words	Pack 2 · Building Fractions from Unit Fractions, Part 4	
5, 16	Fractions on a number line	Pack 3 · Fractions on a Number Line, Part 2	
6, 15	Equal parts	Pack 1 · Unit Fractions, Part 1	
7, 10	Unit fractions in words	Pack 1 · Unit Fractions, Part 4	
9	Unit fractions on a line	Pack 3 · Fractions on a Number Line, Part 1	
11	Shade the fraction	Pack 2 · Building Fractions from Unit Fractions, Part 3	
12	Missing labels	Pack 3 · Fractions on a Number Line, Part 3	
13	Jumps and marks	Pack 3 · Fractions on a Number Line, Part 4	
17	Fractions of a whole	Pack 2 · Building Fractions from Unit Fractions, Parts 3–4	
18	Building a number line	Pack 3 · Fractions on a Number Line, Parts 1–4	

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