Steady Steps Maths

FREE UNIT TEST · TOPIC 11

FREE SAMPLE · UNIT TEST A

Shapes & Equal Parts

Unit Test A · 40 marks · about 40 minutes

GRADE 3



Common Core 3.G.A.1–2

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Name _____ Date _____

UNIT TEST A

Shapes & Equal Parts

40 marks · about 40 minutes · Common Core 3.G.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 How many sides? What is the shape called? [1]

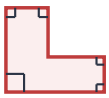


Answer

2 A shape has 6 corners. What is it called? [1]

Answer

3 How many right angles? Count only the corners marked with a small square. [1]

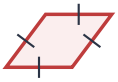


Answer

4 Is a rhombus a quadrilateral? Write yes or no. [1]

Answer

5 Square, rectangle or rhombus? Use the marks. [1]



Answer

6 What am I? I have 5 corners. [1]

Answer

7 A cake is cut into 4 pieces of different sizes. Are they quarters? [1]

Answer

8 The parts are equal. What fraction is shaded? [1]



Answer

9 A sandwich is split into 4 equal parts. What fraction is one part? [1]

Answer

10 Name one feature that a square and a rhombus always share. [1]

Answer

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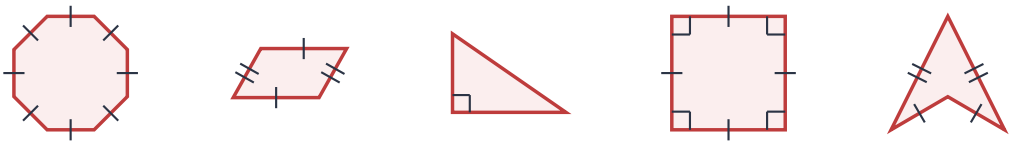
SECTION B Show your working

Marks are given for your method

11 Draw a quadrilateral with **exactly two** right angles. Explain how you know. [2]

Answer

12 Use the shapes A to E. Write the letters. [3]
(a) Which are quadrilaterals? (b) Which have at least one right angle? (c) Which have all sides equal?



A B C D E

Answer

13 Split the rectangle into 4 equal parts. [3]
(a) How many squares are in each part? (b) What fraction of the whole is each part?



Answer

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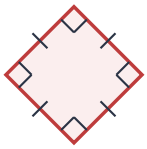
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14 Write one thing that is the same about these two shapes and one thing that is different. [3]



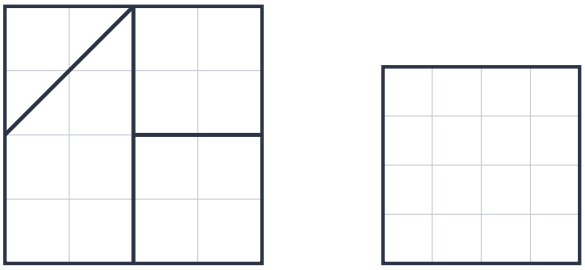
Answer

15 Zaid says this shape is not a square because it is turned. Is that right? Explain. [2]



Answer

16 (a) This shape is split into 4 parts that are not all the same shape. Is each part 1/4 of the whole? Explain. [4]
(b) Shade 1/2 of the square in a way that is not one straight strip.



Answer

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SECTION C Problem solving

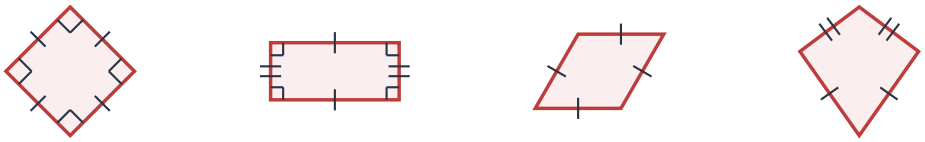
Longer questions with several steps

17 Look at shapes A to D. Use the marks. [7]

(a) Name each shape: square, rectangle, rhombus or none of these.

(b) Which shapes have 4 right angles? (c) Which shapes have 4 equal sides?

(d) Why are all four shapes quadrilaterals?



A B C D

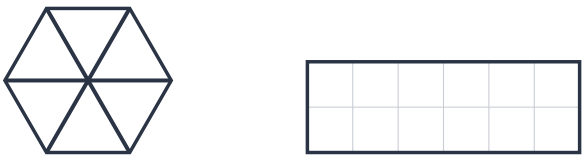
Answer

18 (a) The hexagon is split into 6 equal triangles. What fraction of the hexagon is one of them? [6]

(b) Split the rectangle into 4 equal parts. How many squares are in each part?

(c) What fraction of the rectangle is each part?

(d) Lina says equal parts must be the same shape. Is that right? Explain.



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.

Q	Answer	Marks	How to award the marks
1	3, a triangle	1	Both needed; accept e.g. “6-sided shape”.
2	a hexagon	1	
3	5	1	
4	yes	1	
5	rhombus	1	
6	a pentagon	1	
7	no (the pieces are not equal)	1	
8	1/6	1	
9	1/4	1	
10	4 equal sides or 4 sides	1	Accept any correct shared feature.
11	e.g. square corners at both ends of the bottom, slanted top	2	1 mark for a correct 4-sided shape; 1 mark for the reason.
12	(a) B, D, E (b) C, D (c) A, D	3	1 mark for each part (allow one letter missing or extra in each part).
13	(a) 4 (b) 1/4	3	1 mark for any split with 4 squares in each part; 1 mark for (a); 1 mark for (b).
14	e.g. same: a right angle; different: 3 v 4 sides	3	1 mark each for “same” and “different”; 1 mark for shape words (sides, right angles).
15	No: it still has 4 equal sides and 4 right angles.	2	1 mark for “no”; 1 mark for the reason.
16	(a) yes: each part covers 4 of the 16 squares (b) any 8 squares, not one strip	4	(a) 2 marks: 1 for yes, 1 for the reason. (b) 2 marks.
17	(a) A square, B rectangle, C rhombus, D none of these (b) A, B (c) A, C (d) 4 straight sides (or 4 sides and corners)	7	(a) 1 mark per name (a square may be called a rectangle or rhombus too). (b)–(d) 1 mark each.
18	(a) 1/6 (b) 3 squares (c) 1/4 (d) No: they need the same area, not the same shape.	6	(a) 1. (b) 2: 1 for the split. (c) 1. (d) 2: “no” + “same area”.

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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, 2, 3, 6	Sides, corners and right angles	Pack 1 · Shape Attributes & Categories, Parts 1–2	
4, 5, 10, 15	Quadrilaterals	Pack 2 · Quadrilaterals, Parts 1–3	
7, 8, 9, 13	Equal parts and unit fractions	Pack 3 · Equal Parts of Shapes, Parts 1–3	
11	Drawing quadrilaterals	Pack 2 · Quadrilaterals, Part 4	
12	Sorting shapes	Pack 1 · Shape Attributes & Categories, Part 3	
14	Same and different	Pack 1 · Shape Attributes & Categories, Part 4	
16	Same area, different shape	Pack 3 · Equal Parts of Shapes, Part 4	
17	Naming and comparing quadrilaterals	Pack 2 · Quadrilaterals, Parts 2–3	
18	Equal parts as unit fractions	Pack 3 · Equal Parts of Shapes, Parts 2–4	

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