Steady Steps Maths

FREE UNIT TEST · TOPIC 1

FREE SAMPLE · UNIT TEST A

Understanding Multiplication & Division

Unit Test A · 40 marks · about 40 minutes

GRADE 3



Common Core 3.OA.A.1–4

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Name _____ Date _____

UNIT TEST A

Understanding Multiplication & Division

40 marks · about 40 minutes · Common Core 3.OA.A.1–4

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 dots altogether? Write a multiplication. [1]



Answer

2 Write a multiplication for this array. [1]



Answer

3 Write 9 + 9 + 9 + 9 as a multiplication. [1]

Answer

4 There are 7 bags. Each has 4 apples. How many apples altogether? [1]

Answer

5 63 stickers are shared equally among 9 children. How many each? [1]

Answer

6 16 eggs are put into boxes of 8. How many boxes are filled? [1]

Answer

7 Write a division sentence: 20 in 4 equal groups is 5 in each group. [1]

Answer

8 Find the unknown number: 9 × ☐ = 45 [1]

Answer

9 Find the unknown number: 48 ÷ ☐ = 6 [1]

Answer

10 A piece of string is cut into 4 equal pieces, each 3 cm long. How long was the piece of string? [1]

Answer

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SECTION B Show your working

Marks are given for your method

11 Draw an array with 7 rows of 6 dots. Write a multiplication to find how many dots there are. [2]

Answer

12 Noor has 24 beads and puts them into 8 equal piles. [3]
(a) How many beads are in each pile? (b) Write the multiplication fact that checks it. (c) Noor adds 1 more bead to each pile. How many beads are used now?

Answer

13 Write a word problem for 2 × 5. Then solve it. [3]

Answer

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14 56 children are put into teams of 8. [3]
(a) How many teams are there? Write a division sentence. (b) Draw a picture or number line to show it.
(c) Next week 1 more child joins each team. How many children are there then?

Answer

15 Sana says ☐ = 9 in 9 × ☐ = 54. Is Sana right? Explain and find the right number. [2]

Answer

16 A vegetable patch has 4 rows of carrots with 6 carrots in each row. [4]
(a) How many carrots are there? (b) Huda picks all the carrots and shares them equally among 3 baskets. How many carrots go in each basket?

Answer

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SECTION C Problem solving

Longer questions with several steps

17 Bilal buys 3 boxes of muffins. Each box has 8 muffins. [7]

(a) How many muffins are there? Draw an array or equal groups to show it.

(b) The family eats 4 muffins. How many are left?

(c) The muffins that are left are shared equally among 2 friends. How many does each friend get?

Answer _____

18 Find each unknown number. Write the multiplication or division fact you used. [6]

(a) ☐ × 4 = 20 (b) 20 ÷ ☐ = 2

(c) Rana puts stamps in 8 rows of 9. Write an equation with ☐ for the number of stamps, and find it.

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 × 5 = 15	1	Accept 5 × 3 = 15 too.
2	4 × 6 = 24 (or 6 × 4)	1	
3	4 × 9 = 36	1	Accept 9 × 4.
4	28 apples	1	
5	7 stickers	1	
6	2 boxes	1	
7	20 ÷ 4 = 5	1	
8	5	1	
9	8	1	
10	12 cm	1	
11	7 rows of 6 dots; 7 × 6 = 42	2	1 mark for a correct array; 1 mark for the multiplication (accept 6 × 7).
12	(a) 3 (b) 8 × 3 = 24 (c) 8 × 4 = 32	3	1 mark each part. Accept the turn-around in (b).
13	e.g. “2 bags with 5 sweets in each. How many sweets?” 10	3	2 marks for an equal-groups story that matches the numbers (either order); 1 mark for the answer.
14	(a) 56 ÷ 8 = 7 teams (b) e.g. 7 groups of 8, or jumps of 8 to 56 (c) 7 × 9 = 63	3	1 mark each part.
15	No: 9 × 9 = 81, not 54. ☐ = 6 because 9 × 6 = 54.	2	1 mark for “no” with a check (e.g. “9 × 6 = 54, so it isn't 9”); 1 mark for ☐ = 6.
16	(a) 4 × 6 = 24 (b) 24 ÷ 3 = 8	4	(a) 2 marks: 1 for the multiplication (either order). (b) 2 marks: 1 for the division. Follow through.
17	(a) 3 × 8 = 24 (picture of 3 groups of 8) (b) 24 − 4 = 20 (c) 20 ÷ 2 = 10	7	(a) 3 marks: 1 for the picture, 1 for the multiplication, 1 for the answer. (b) 2 marks. (c) 2 marks: 1 for dividing. Follow through.
18	(a) 5 (5 × 4 = 20) (b) 10 (10 × 2 = 20) (c) ☐ = 8 × 9 (or ☐ ÷ 8 = 9); ☐ = 72	6	(a) 2 marks, (b) 2 marks: 1 for the answer, 1 for a matching fact. (c) 2 marks: 1 for any correct equation, 1 for the answer.

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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	Equal groups	Pack 1 · Multiplication as Equal Groups, Part 1	
2, 11	Arrays	Pack 1 · Multiplication as Equal Groups, Part 2	
3	Adding and multiplying	Pack 1 · Multiplication as Equal Groups, Part 3	
4, 13	Multiplication stories	Pack 1 · Multiplication as Equal Groups, Part 4	
5	Sharing equally	Pack 2 · Division as Sharing & Grouping, Part 1	
6, 14	Making equal groups	Pack 2 · Division as Sharing & Grouping, Part 2	
7	Division sentences	Pack 2 · Division as Sharing & Grouping, Part 3	
8, 9, 15	Find the unknown number	Pack 3 · Word Problems & Unknown Numbers, Part 3	
10	Measurement problems	Pack 3 · Word Problems & Unknown Numbers, Part 2	
12	Sharing equally	Pack 2 · Division as Sharing & Grouping, Parts 1 and 3	
16	Equal groups and arrays	Pack 3 · Word Problems & Unknown Numbers, Part 1	
17	Equal groups, then sharing	Pack 1 · Multiplication as Equal Groups, Part 4 and Pack 2 · Division as Sharing & Grouping, Part 4	
18	Unknown numbers in equations	Pack 3 · Word Problems & Unknown Numbers, Parts 3 and 4	

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