Steady Steps Maths

FREE UNIT TEST · TOPIC 9

FREE SAMPLE · UNIT TEST A

Measurement & Data

Unit Test A · 40 marks · about 40 minutes

GRADE 4



Common Core 4.MD.A.1–3, 4.MD.B.4

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Name _____ Date _____

UNIT TEST A

Measurement & Data

40 marks · about 40 minutes · Common Core 4.MD.A.1–3 · 4.MD.B.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. Convert. 6 km 200 m = ☐ m [1]

Answer

2. Convert. 8 kg 600 g = ☐ g [1]

Answer

3. Convert. 4 min 10 sec = ☐ sec [1]

Answer

4. A conversion table starts: 1 km → 1,000 m, 2 km → 2,000 m. What goes next to 6 km? [1]

Answer

5. A lesson starts at 2:50 and ends at 3:15. How long is the lesson? [1]

Answer

6. A jug holds 2 litres of water. 750 ml is poured out. How many millilitres are left? [1]

Answer

7. A rectangle is 14 cm long and 7 cm wide. What is its perimeter? [1]

Answer

8. A rectangle is 13 m long and 4 m wide. What is its area? [1]

Answer

9. A line plot has 4 Xs above $\frac{7}{8}$ inch. What is the total length of these 4 measurements? [1]

Answer

10. A rectangle has an area of 48 m². Its length is 8 m. How wide is it? [1]

Answer

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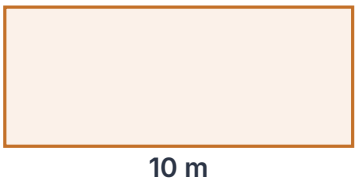
SECTION B Show your working

Marks are given for your method

11 Huda walks 1 km 400 m to school and the same distance back home. How far does she walk altogether? Give your answer in metres. [2]

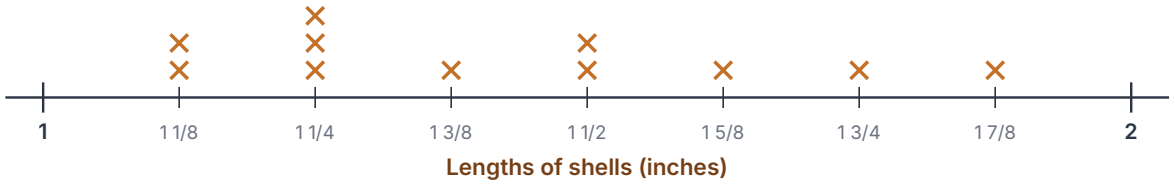
Answer

12 Look at the rectangle. [3]
(a) Find its perimeter. (b) Find its area. (c) Another rectangle has the same area and is 20 m long. How wide is it?



Answer

13 The line plot shows the lengths of shells a class measured. [3]
(a) How many were measured? (b) What is the difference between the longest and the shortest? (c) What is the total length of all the measurements at the most common length?



Answer

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14 Rami's swimming lesson starts at 4:20 and ends at 5:35. [3]
(a) How long is one lesson? (b) He has 3 lessons. How much time is that altogether, in hours and minutes?

Answer

15 **You be the teacher.** Sami says 3 m 4 cm = 34 cm. [2]
(a) What is his mistake? (b) Write the correct answer.

Answer

16 A puppy weighed $4\frac{1}{4}$ kg. It gained $\frac{3}{4}$ kg in one month and $\frac{1}{2}$ kg the next month. [4]
(a) How heavy is the puppy now? (b) The vet says it should grow to 6 kg. How much more must it gain?

Answer

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SECTION C Problem solving

Longer questions with several steps

17 A school garden is a rectangle 26 m long and 15 m wide. [7]

(a) A fence goes all the way around the garden. How long is the fence?

(b) Each metre of fence costs 3. What is the cost of the whole fence?

(c) What is the area of the garden?

(d) One bag of grass seed covers 7 m². How many bags are needed to cover the whole garden? Explain your answer.

Answer

18 The table shows the lengths of ten caterpillars, in inches. [6]

(a) Make a line plot of the data. (b) Which length is the most common? (c) What is the difference between the longest and the shortest? (d) What is the total length of all the caterpillars that are $^{3}/_{4}$ inch long?

Caterpillars	1	2	3	4	5	6	7	8	9	10
Inches	3/4	1/4	1/2	3/4	1 1/4	1/2	1	1/2	1/2	1 1/2



Lengths of caterpillars (inches)

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	6,200 m	1	
2	8,600 g	1	
3	250 sec	1	
4	6,000 m	1	
5	25 min	1	
6	1,250 ml	1	
7	42 cm	1	
8	52 m²	1	
9	3 4/8 (also 3 1/2) in	1	
10	6 m	1	
11	2,800 m	2	1 mark for 1 km 400 m = 1,400 m; 1 for the answer.
12	(a) 28 m (b) 40 m² (c) 2 m	3	1 mark each part; (b) needs square units.
13	(a) 11 (b) 6/8 (also 3/4) in (c) 3 6/8 (also 3 3/4) in	3	1 mark each part. Fractions need not be simplified.
14	(a) 1 hr 15 min (b) 225 min = 3 hr 45 min	3	(a) 1 mark. (b) 2 marks: 1 for 3 × 75 = 225 min.
15	(a) 3 m = 300 cm (1 m = 100 cm) (b) 304 cm	2	1 mark each part.
16	(a) 5 2/4 (also 5 1/2) kg (b) 2/4 (also 1/2) kg	4	(a) 2 marks: 1 for adding the fractions. (b) 2 marks: 1 for a correct method. Follow through from (a).
17	(a) 82 m (b) 246 (c) 390 m² (d) 56 bags (55 r 5)	7	(a) 2 marks: 1 for 2 × (26 + 15). (b) 2 marks: 1 for (a) × 3. (c) 1 mark. (d) 2 marks: 1 for ÷ 7; 1 for rounding up to 56. Follow through.
18	(a) Xs: 1/4: 1, 1/2: 4, 3/4: 2, 1 : 1, 1 1/4: 1, 1 1/2: 1 (b) 1/2 (c) 1 1/4 (d) 1 2/4 (also 1 1/2) inches	6	(a) 2 marks: 1 if one or two Xs are wrong. (b) 1. (c) 1. (d) 2 marks: 1 for a correct method. Follow through.

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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, 15	Converting length	Pack 1 · Converting Units, Part 1	
2	Converting mass and capacity	Pack 1 · Converting Units, Part 2	
3	Converting time	Pack 1 · Converting Units, Part 3	
4	Conversion tables	Pack 1 · Converting Units, Part 4	
5, 14	Intervals of time	Pack 2 · Measurement Word Problems, Part 2	
6	Liquid volume	Pack 2 · Measurement Word Problems, Part 3	
7	Perimeter	Pack 3 · Area & Perimeter, Part 1	
8	Area	Pack 3 · Area & Perimeter, Part 2	
9	Adding from a line plot	Pack 4 · Line Plots with Fractions, Part 3	
10	Missing sides	Pack 3 · Area & Perimeter, Part 3	
11	Distance problems	Pack 2 · Measurement Word Problems, Part 1	
12	Area and perimeter	Pack 3 · Area & Perimeter, Parts 1, 2 and 3	
13	Reading a line plot	Pack 4 · Line Plots with Fractions, Parts 1 and 3	
16	Fractions in measurement problems	Pack 2 · Measurement Word Problems, Part 4	
17	Area, perimeter and money	Pack 3 · Area & Perimeter, Part 4 and Pack 2 · Measurement Word Problems, Part 3	
18	Making and using a line plot	Pack 4 · Line Plots with Fractions, Parts 2, 3 and 4	

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