Steady Steps Maths

FREE UNIT TEST · TOPIC 8

FREE SAMPLE · UNIT TEST A

Graphs & Line Plots

Unit Test A · 40 marks · about 40 minutes

GRADE 3



Common Core 3.MD.B.3–4

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Name _____ Date _____

UNIT TEST A

Graphs & Line Plots

40 marks · about 40 minutes · Common Core 3.MD.B.3–4

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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Name _____ Date _____

SECTION A Quick questions

1 mark each · write your answer in the box

1 How many children for Football? [1]

Favourite sport

Football	●●●●●◐
Tennis	●●
Swimming	●●◐
Running	●●●

● = 2 children

Answer

2 Same graph: how many more for Football than Tennis? [1]

Answer

3 Each symbol in a picture graph stands for 10. How many symbols show 30? [1]

Answer

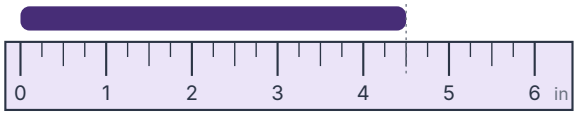
4 Each symbol stands for 10. What do 5 and a half symbols show? [1]

Answer

5 A bar graph's scale goes up in 10s. A bar stops halfway between 60 and 70. What number does it show? [1]

Answer

6 How long is the bar? Measure to the nearest quarter inch. [1]



Answer

7 How many half inches make 5 inches? [1]

Answer

8 Which is longer: 1 1/2 inches or 2 1/4 inches? [1]

Answer

9 A line plot has 4 X marks above 3 and 6 above 3 1/2. How many measurements? [1]

Answer

10 On a ruler, which mark is halfway between 6 and 7? [1]

Answer

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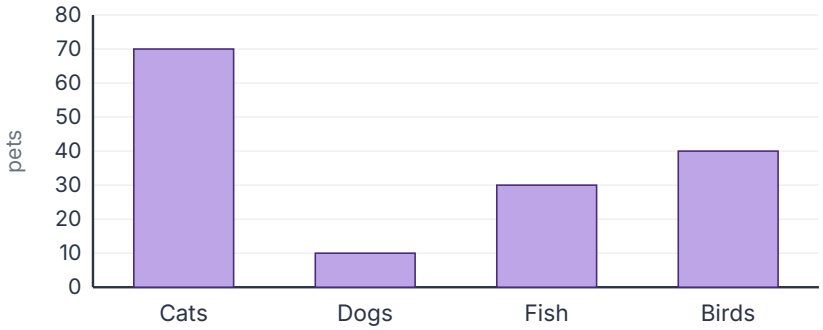
Name _____ Date _____

SECTION B Show your working

Marks are given for your method

11 Use the bar graph. [2]
(a) What is the difference between Birds and Fish? (b) What is the total for Birds and Fish?

Pets in Class 3



Answer

12 In this picture graph each symbol stands for 5. Apples has 15. Draw the symbols for Apples. Then write how many symbols you drew. [3]

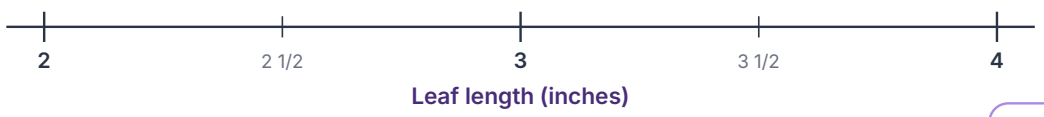
Favourite fruit

Apples	
Bananas	●●●●●
Grapes	●●●●
Mangoes	●●●●●●

● = 5 children

Answer

13 Leaf lengths in inches: 2, 2 1/2, 2 1/2, 3, 3, 3 1/2, 3 1/2, 3 1/2. [3]
Show the data on the line plot.

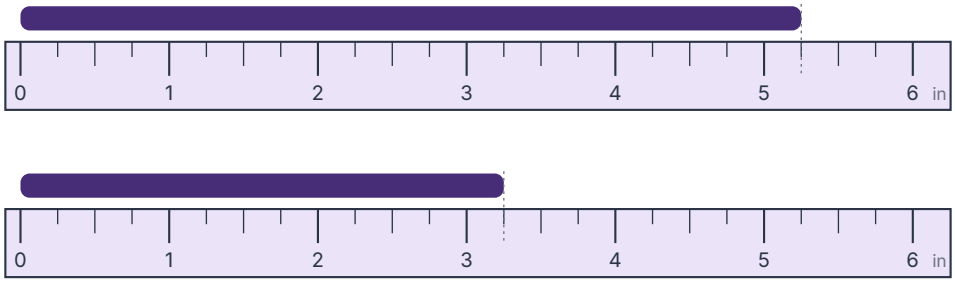


Answer

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Name _____ Date _____

14 Measure each bar to the nearest quarter inch. (a) Bar 1 (b) Bar 2 (c) Which bar is longer? [3]

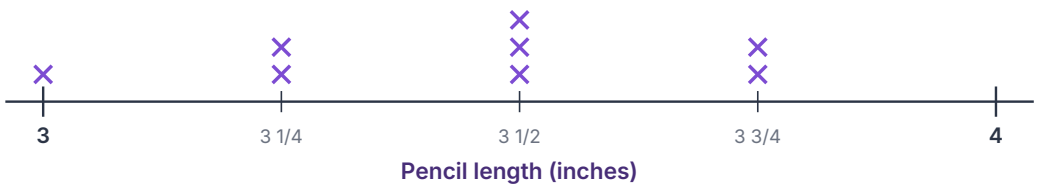


Answer

15 On a bar graph the scale goes up in 10s. Lina says a bar that is 6 lines high shows 6. What did Lina do wrong? What does the bar show? [2]

Answer

16 The line plot shows pencil lengths. [4]
(a) How many pencils were measured? (b) Which length is the most common? (c) How many pencils are longer than 3 1/2 inches? (d) What is the length of the longest pencil?



Answer

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SECTION C Problem solving

Longer questions with several steps

17 Class 3 collected cans for 5 days. On Wed they collected 30 cans. [7]

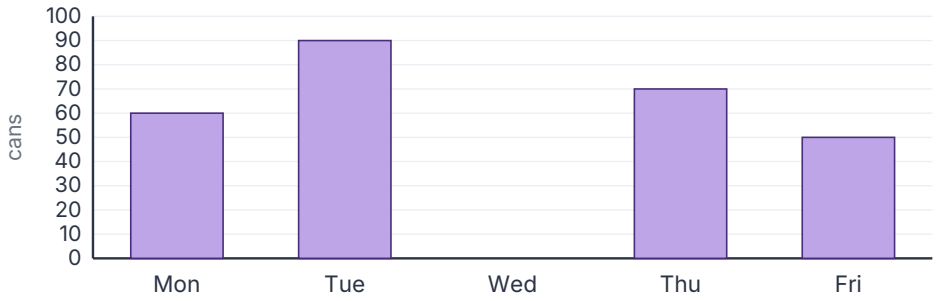
(a) Draw the bar for Wed.

(b) On which day did they collect the most cans? The fewest?

(c) How many more cans were collected on Tue than on Wed?

(d) How many cans were collected altogether?

Cans collected



Answer

18 These numbers for "Books read" will be shown in a picture graph where each symbol stands for 5: Week 1 25, Week 2 10, Week 3 40, Week 4 15. [6]

(a) How many symbols are needed for each row? (b) How many more for Week 3 than Week 2?

(c) 20 more are added to Week 2. How many symbols does that row have now?

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	11	1	
2	7	1	
3	3 symbols	1	
4	55	1	
5	65	1	
6	4 1/2 inches	1	
7	10	1	
8	2 1/4 inches	1	
9	10	1	
10	6 1/2	1	
11	(a) 10 (b) 70	2	1 mark each part.
12	3 symbols in the Apples row	3	2 marks for the right number of symbols in the row (1 if one off); 1 mark for writing the number.
13	X marks: 2 (1), 2 1/2 (2), 3 (2), 3 1/2 (3)	3	3 marks for all 8 X marks in the right places (2 marks for 6–7, 1 mark for 4–5).
14	(a) 5 1/4 in (b) 3 1/4 in (c) Bar 1	3	1 mark each part.
15	Each line is worth 10, not 1. The bar shows 60.	2	1 mark for the reason; 1 mark for the right number.
16	(a) 8 (b) 3 1/2 in (c) 2 (d) 3 3/4 in	4	1 mark each part.
17	(a) bar up to 30 (b) most Tue, fewest Wed (c) 60 (d) 300	7	(a) 2 marks (1 if within half a line). (b) 1 mark for both. (c) 2 marks: 1 for subtracting. (d) 2 marks: 1 for adding all five. Follow through.
18	(a) Week 1 5, Week 2 2, Week 3 8, Week 4 3 (b) 30 (c) 6 symbols	6	(a) 2 marks (1 if one row wrong). (b) 2 marks. (c) 2 marks: 1 for adding first. 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, 2, 3, 4, 5, 11, 12, 15, 17, 18	Picture graphs	Pack 1 · Picture Graphs & Bar Graphs, Parts 1–4	
6, 7, 8, 10, 14	Measuring to the quarter inch	Pack 2 · Measuring & Line Plots, Parts 1–2	
9, 13, 16	Reading a line plot	Pack 2 · Measuring & Line Plots, Parts 3–4	

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