

Grade 3 · Scaled Graphs and Line Plots · Quiz

Common Core 3.MD.B.3, 3.MD.B.4 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

Test what you know about scaled picture graphs, scaled bar graphs, and line plots with 10 multiple choice questions. Check the key, the scale, and the ruler marks, then pick the one correct answer. The explanation after each question shows how to solve it.

Grade 3 Common Core: 3.MD.B.3 · 3.MD.B.4

Questions

Question 1

Each circle stands for 2 books. How many books did Jamal read?

Books Read

Maya 

Jamal 

Sofia 

Ethan 

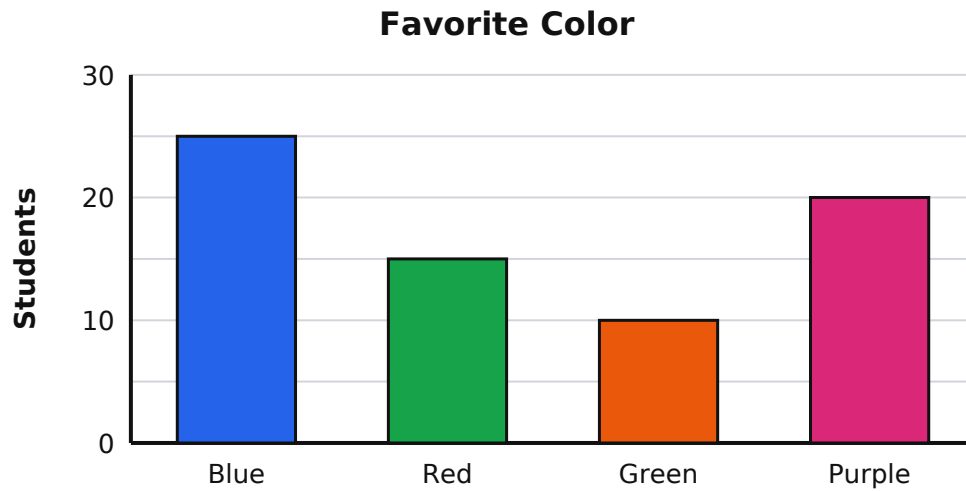
 **Key: each circle = 2 books**

Picture graph for Quiz question 1.

- A. 3 books
- B. 2 books
- C. 10 books
- D. 5 books

Question 2

How many students chose red?

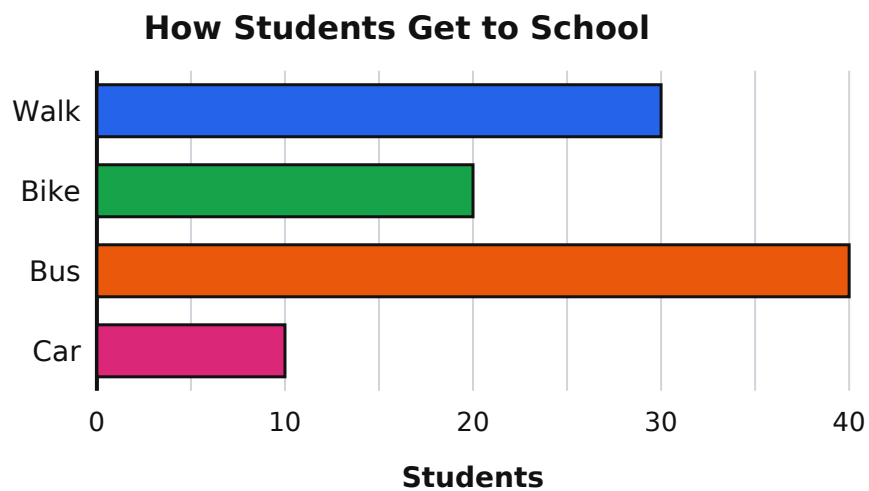


Bar graph for Quiz question 2.

- A. 10 students
- B. 15 students
- C. 20 students
- D. 3 students

Question 3

How many more students ride the bus than ride a bike?

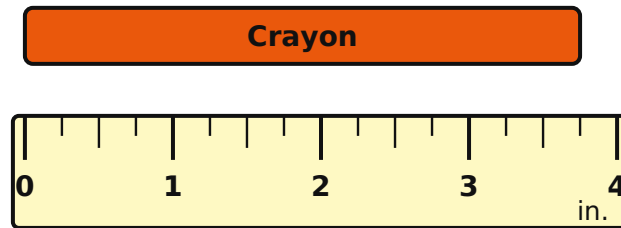


Bar graph for Quiz question 3.

- A. 20 students
- B. 10 students
- C. 60 students
- D. 30 students

Question 4

How long is the crayon to the nearest fourth of an inch?

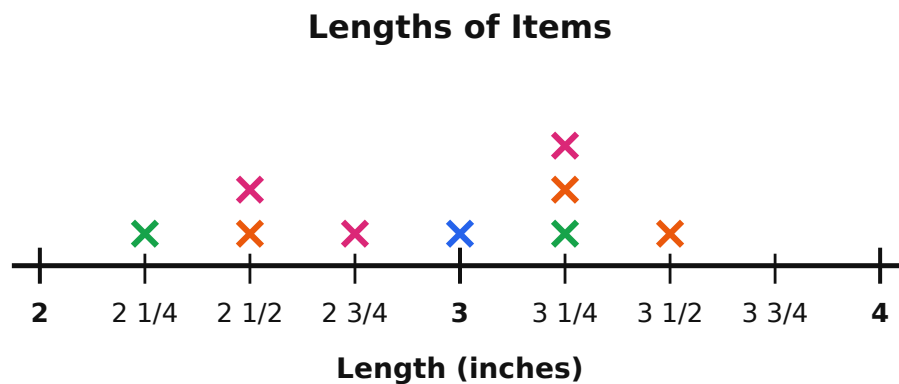


Ruler for Quiz question 4.

- A. $3\frac{1}{4}$ inches
- B. $4\frac{1}{4}$ inches
- C. $3\frac{3}{4}$ inches
- D. $3\frac{1}{2}$ inches

Question 5

How many items are $3\frac{1}{4}$ inches long?



Line plot for Quiz question 5.

- A. 1
- B. 9
- C. 3
- D. 2

Question 6

In a picture graph each circle stands for 4 books. A row has 4 whole circles and 1 half circle. How many books does the row show?

- A. 18 books
- B. 20 books
- C. 16 books

D. 9 books

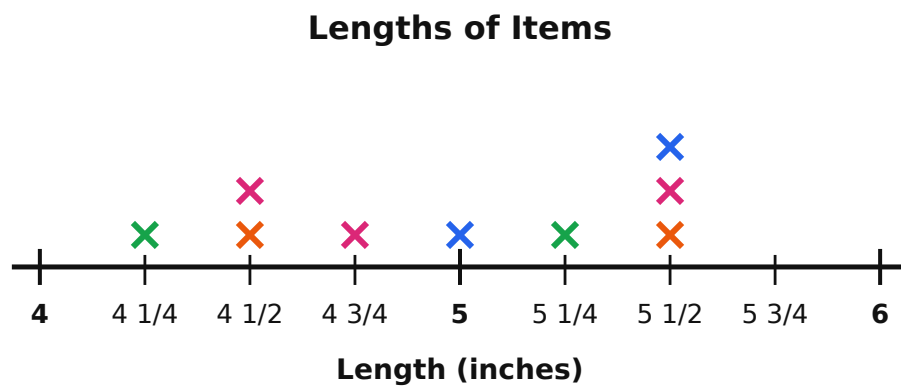
Question 7

Each square on a bar graph grid stands for 10 votes. A bar is 6 squares tall. How many votes does it show?

- A. 16 votes
- B. 6 votes
- C. 60 votes
- D. 66 votes

Question 8

How many items are longer than 5 inches?



Line plot for Quiz question 8.

- A. 2
- B. 5
- C. 9
- D. 4

Question 9

A bar graph shows votes of 15, 25, 10, and 20. How many votes are there in all?

- A. 60 votes
- B. 70 votes
- C. 75 votes
- D. 80 votes

Question 10

A line plot is marked in fourths of an inch. Which measurement is the longest?

- A. $2\frac{3}{4}$ inches
- B. $2\frac{1}{4}$ inches
- C. $2\frac{1}{2}$ inches

D. 2 inches

Answer key

1. **D** – Jamal has 2 whole circles and a half circle: $2 \times 2 = 4$, and half a circle is 1, so 5 books. Counting 3 circles ignores the half.
2. **B** – The red bar stops halfway between the lines for 10 and 20, so it shows 15. Reading the nearest labeled line gives 10 or 20.
3. **A** – The bus bar is 40 and the bike bar is 20. $40 - 20 = 20$. Adding the two bars gives 60.
4. **C** – The crayon ends at the third fourth mark after 3, so it is 3 and $\frac{3}{4}$ inches. Counting only 1 fourth gives 3 and $\frac{1}{4}$.
5. **C** – There are 3 Xs above 3 and $\frac{1}{4}$, so 3 items have that length. Each X is one item.
6. **A** – $4 \times 4 = 16$ and half of 4 is 2, so $16 + 2 = 18$. Counting the half circle as a whole one gives 20.
7. **C** – $6 \times 10 = 60$. Adding $6 + 10$ gives 16, which does not use the scale.
8. **D** – Count the Xs to the right of 5: 1 at $5 \frac{1}{4}$ and 3 at $5 \frac{1}{2}$, so 4 items. The 5 inch mark itself is not longer than 5.
9. **B** – $15 + 25 + 10 + 20 = 70$. Check each addition: $15 + 25 = 40$, then $40 + 10 = 50$, then $50 + 20 = 70$.
10. **A** – All the lengths are between 2 and 3 inches, and $\frac{3}{4}$ is bigger than $\frac{1}{2}$ and $\frac{1}{4}$, so 2 and $\frac{3}{4}$ is the longest.

Remember:

- In a scaled picture graph, the key tells how many items each symbol stands for.
- A half symbol stands for half of the number in the key.
- In a scaled bar graph, read the scale first; a bar can end between two labeled lines.
- To find how many more or fewer, subtract the two values; to find a total, add.
- A line plot puts one X above a measurement on a number line marked in halves or fourths of an inch.