

Grade 2 · Picture Graphs, Bar Graphs and Line Plots

Plots · Worksheet Answer Key

Common Core 2.MD.D.9, 2.MD.D.10 · mathovore.fr

This answer key shows each step for the 24 graph problems. Point to the graph while you check an answer. Look at the key and scale first, count carefully, and write the unit when the problem asks for a length. Redrawn graphs show what the finished work looks like.

Grade 2 Common Core: 2.MD.D.9 · 2.MD.D.10

Problem 1: Read the ruler

The crayon starts at 0. It ends at the 4 inch mark.

The crayon is **4 inches** long.

Problem 2: Measure the pencil

The end of the pencil lines up with the 6.

The pencil is **6 inches** long.

Problem 3: Make a line plot

Count each length: 3 in: 1 leaf, 4 in: 2 leaves, 5 in: 3 leaves, 6 in: 2 leaves, 7 in: 0 leaves.
Check: $1+2+3+2=8$ leaves.

Lengths of 8 leaves



Length in inches

The finished line plot.

There are **8 X marks**, one for each leaf.

Problem 4: Count on the line plot

- a. There are 3 X marks above 4. **3 crayons.**
- b. Shorter than 4 inches means 2 inches or 3 inches: $1+3=4$. **4 crayons.**

Problem 5: How many objects

Count the X marks above each number. The numbers 5, 6, 7, 8, and 9 have 1, 2, 3, 2, and 1 X marks.

Add: $1+2=3$, $3+3=6$, $6+2=8$, $8+1=9$.

Priya measured **9 sticks**.

Problem 6: Longest and shortest

The shortest stick has an X at 5 inches. The longest stick has an X at 9 inches. Subtract: $9-5=4$.

The longest is 9 inches, the shortest is 5 inches, and the longest is **4 inches longer**.

Problem 7: Read a picture graph

Count the circles in the Grape row: 5. The Apple row has 6 circles, which is the most.

5 students chose grapes. **Apple** was chosen the most.

Problem 8: Put together on a picture graph

Apples: 6. Bananas: 4. Put together: $6+4=10$.

10 students chose apples or bananas.

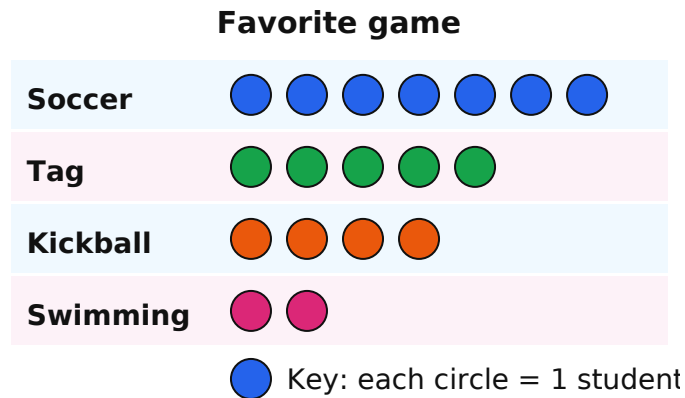
Problem 9: Compare on a picture graph

Apples: 6. Oranges: 3. Subtract: $6-3=3$.

3 more students chose apples.

Problem 10: Make a picture graph

Draw 7 circles in the Soccer row, 5 in Tag, 4 in Kickball, and 2 in Swimming.



The finished picture graph.

Check: $7+5+4+2=18$ students in all.

The graph has 18 circles.

Problem 11: Read a bar graph

The tallest bar is Dog, with 7. The shortest bar is Bird, with 2.

The most popular pet is **dog**. The least popular is **bird**.

Problem 12: Put together on a bar graph

Cats: 5. Fish: 3. Add: $5+3=8$.

There are **8 cats and fish** in all.

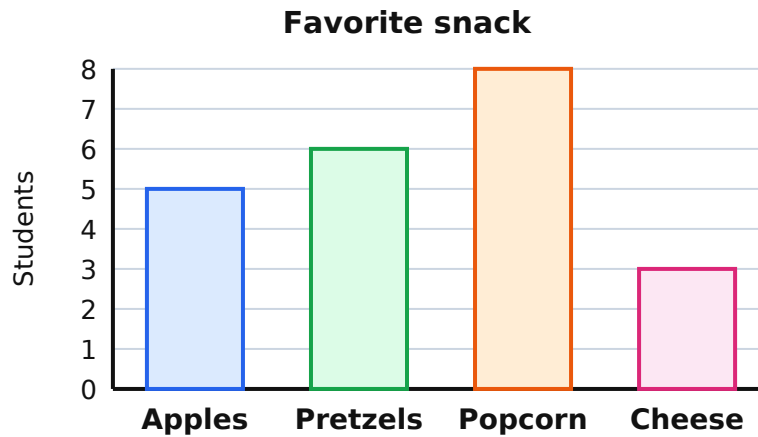
Problem 13: Compare on a bar graph

Dogs: 7. Birds: 2. Subtract: $7-2=5$.

There are **5 fewer birds** than dogs.

Problem 14: Make a bar graph

Draw each bar up to its number: Apples to 5, Pretzels to 6, Popcorn to 8, and Cheese to 3.



The finished bar graph.

Popcorn has the tallest bar.

Problem 15: All the pets

Add all four bars: $7+5+3+2$. First $7+5=12$. Then $12+3=15$. Then $15+2=17$.

There are **17 pets** in all.

Problem 16: Compare two lengths

Subtract the shorter length from the longer length: $9-6=3$. Check: $6+3=9$.

The marker is **3 inches longer**.

Problem 17: Take apart

There are 4 X marks above 5. All ribbons: 10. Take apart: $10-4=6$.

6 ribbons are not 5 inches long.

Problem 18: Order from most to least

Count each row: Soccer 7, Tag 5, Kickball 4, Swimming 2. Put the numbers in order: 7, 5, 4, 2.

Soccer, Tag, Kickball, Swimming.

Problem 19: Two groups

Soccer and tag: $7+5=12$. Kickball and swimming: $4+2=6$. Compare: $12-6=6$.

6 more students chose soccer and tag.

Problem 20: Favorite colors

Add: $4+6=10$, $10+3=13$, $13+5=18$. Compare blue and green: $6-3=3$.

18 students voted, and **3 fewer** voted for green than for blue.

Problem 21: Leaves longer than 4

Longer than 4 inches means 5 inches or 6 inches. There are 3 X marks at 5 and 1 X at 6. Add: $3+1=4$.

4 leaves are longer than 4 inches.

Problem 22: Will cheese win

Cheese has 3 votes now. Add 4 more: $3+4=7$. Popcorn has 8. Since $7<8$, cheese still has fewer votes.

No. Cheese would have 7 votes and popcorn has 8, so popcorn is still ahead by 1.

Problem 23: School lunch

(a) Add the rows: $9+6=15$, $15+3=18$, $18+5=23$. (b) Take apart: $23-9=14$.

(a) 23 students. (b) 14 students.

Problem 24: Measuring sticks

(a) There are 3 X marks above 6. (b) The last X is above 8. (c) Longer than 6 means 7 or 8: $2+2=4$.

(a) 3 sticks. (b) 8 inches. (c) 4 sticks.