

# Grade 3 · Scaled Graphs and Line Plots · Worksheet Answer Key

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

Every solution shows the steps: reading the key or scale, counting the Xs, and adding or subtracting the values. Compare your work and check that each answer has the right unit. Drawn graphs are shown so you can compare yours.

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

### Problem 1: Read the key

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Peaches has 5 circles. Each circle is 2:  $5 \times 2 = 10$ . **10 peaches** were sold.

### Problem 2: Half circle

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Friday has 3 whole circles and 1 half circle.  $3 \times 10 = 30$  and half of 10 is 5, so  $30 + 5 = 35$ . **35 tickets** were sold.

### Problem 3: How many more

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Diego has  $7 \times 5 = 35$  stickers. Mei has  $3 \times 5 = 15$  stickers.  $35 - 15 = 20$ . Diego collected **20 more stickers**.

### Problem 4: Total books

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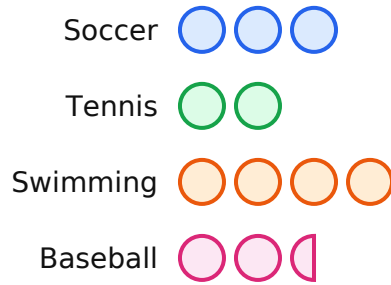
Priya: 6 circles,  $6 \times 2 = 12$ . Liam: 4 circles, 8. Sofia: 7 circles, 14. Jamal: 3 circles, 6.  $12 + 8 + 14 + 6 = 40$ . They read **40 books**.

### Problem 5: Make a picture graph

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Divide by 4:  $12 \div 4 = 3$ ,  $8 \div 4 = 2$ ,  $16 \div 4 = 4$ . For 10, use 2 circles (8) and a half circle (2).

### Favorite Sports



**Key: each circle = 4 students**

Soccer 3 circles, Tennis 2, Swimming 4, Baseball 2 and a half.

**3, 2, 4, and 2 and a half circles.**

### Problem 6: Bar graph by twos

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The scale counts by 2. The Fish bar reaches the line labeled 10. **10 students** have a fish.

### Problem 7: Lunch votes

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Pizza is 25 and salad is 10.  $25 - 10 = 15$ . **15 more students** chose pizza.

### Problem 8: How many fewer

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The labels count by 10 and the gray lines are 5 more. Green is 45 and pink is 15.  $45 - 15 = 30$ . **30 fewer students** chose pink.

### Problem 9: Going to school

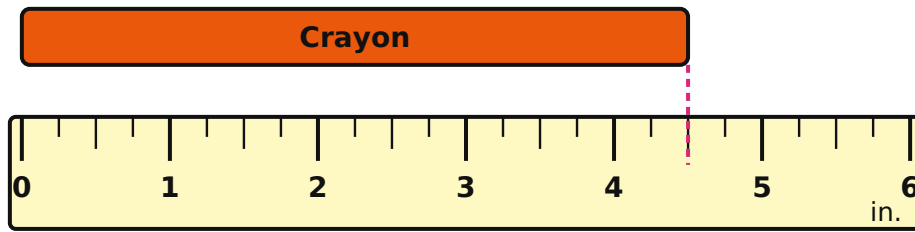
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Read each bar: 30, 20, 40, and 10.  $30 + 20 + 40 + 10 = 100$ . **100 students** were asked.

### Problem 10: Measure the crayon

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The right end of the crayon is on the mark halfway between 4 and 5. The length is **4 and a half inches**, or  $4\frac{1}{2}$  inches.



The crayon ends at the half mark after 4.

### Problem 11: Measure the pencil

The pencil passes 5 inches and stops at the third fourth mark after 5. The length is  $5\frac{3}{4}$  inches.

### Problem 12: Measure the ribbon

The ribbon passes 2 inches and stops at the first fourth mark after 2. The length is  $2\frac{1}{4}$  inches.

### Problem 13: Seedling line plot

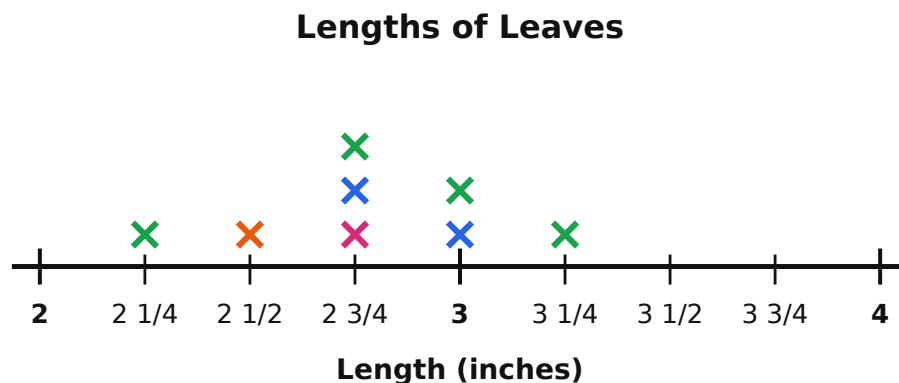
Look above the mark  $2\frac{1}{2}$ . There are 3 Xs. **3 seedlings** are  $2\frac{1}{2}$  inches tall.

### Problem 14: Short pencils

Count the Xs to the left of 6: 1 at  $5\frac{1}{4}$ , 2 at  $5\frac{1}{2}$ , and 1 at  $5\frac{3}{4}$ .  $1+2+1=4$ . **4 pencils** are shorter than 6 inches.

### Problem 15: Make a line plot

Draw ticks at 2,  $2\frac{1}{4}$ ,  $2\frac{1}{2}$ ,  $2\frac{3}{4}$ , 3,  $3\frac{1}{4}$ ,  $3\frac{1}{2}$ ,  $3\frac{3}{4}$ , and 4. Put one X for each leaf: 1, 1, 1, 3, 2 leaves at the marks shown below.



The line plot has 8 Xs.

The tallest stack is above  $2\frac{3}{4}$ . The most common length is  $2\frac{3}{4}$  inches.

### Problem 16: Longest and shortest

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The longest ribbon is  $5\frac{1}{2}$  inches. The shortest ribbon is  $3\frac{1}{2}$  inches. The whole numbers differ by  $5-3=2$  and both have the same half, so the difference is **2 inches**.

### Problem 17: Recycling cans

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Monday is 25 and Thursday is 30:  $25+30=55$ . Tuesday is 35:  $55-35=20$ . Together they recycled **55 cans**, which is **20 more** than Tuesday.

### Problem 18: Sports votes

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Add the bars:  $30+20+25+10=85$ . Subtract:  $25-10=15$ . **85 students** voted, and **15 fewer** chose tennis than swimming.

### Problem 19: Cupcake circles

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Priya:  $4\times 6=24$  and half of 6 is 3, so  $24+3=27$ . Noah:  $2\times 6=12$ .  $27-12=15$ . Priya sold **15 more cupcakes**.

### Problem 20: Craft sticks

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Count the Xs at 4 and to the left of 4: 1 at  $3\frac{1}{2}$ , 1 at  $3\frac{3}{4}$ , and 3 at 4.  $1+1+3=5$ . **5 craft sticks** are 4 inches long or shorter.

### Problem 21: Graph paper squares

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$35\div 5=7$ , so the bar is **7 squares** tall.  $12\times 5=60$ , so the tall bar shows **60 votes**.

### Problem 22: Travel circles

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Walk:  $25\div 5=5$  circles. Bike:  $15\div 5=3$  circles. Bus:  $40\div 5=8$  circles.  $5+3+8=16$ . He will draw **16 circles**.