

Grade 5 · Converting Units and Line Plots · Worksheet Answer Key

Common Core 5.MD.A.1, 5.MD.B.2 · mathovore.fr

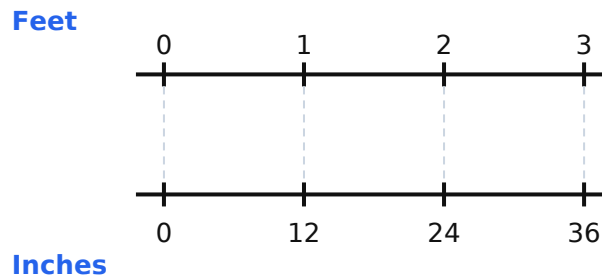
Every solution shows the conversion factor and the operation. Check whether your answer makes sense: a larger unit needs fewer units, and a smaller unit needs more.

Grade 5 Common Core: 5.MD.A.1 · 5.MD.B.2

Problem 1: Feet to inches

One foot is 12 inches and feet are larger, so multiply: $3 \times 12 = 36$.

Answer: 36 in.



The last mark on the bottom line is 36 inches.

Problem 2: Yards to feet

One yard is 3 feet, so multiply: $7 \times 3 = 21$.

Answer: 21 ft.

Problem 3: Pounds to ounces

One pound is 16 ounces, so multiply: $5 \times 16 = 80$.

Answer: 80 oz.

Problem 4: Gallons to quarts

One gallon is 4 quarts, so multiply: $6 \times 4 = 24$.

Answer: 24 qt.

Problem 5: Meters to centimeters

One meter is 100 centimeters, so multiply: $4 \times 100 = 400$.

Answer: 400 cm.

Problem 6: Kilograms to grams

One kilogram is 1,000 grams, so multiply: $2.5 \times 1,000 = 2,500$.

Answer: 2,500 g.

Problem 7: Inches to feet

Inches are smaller than feet, so divide by 12: $60 \div 12 = 5$.

Answer: 5 ft.

Problem 8: Ounces to pounds

Ounces are smaller than pounds, so divide by 16: $48 \div 16 = 3$.

Answer: 3 lb.

Problem 9: Cups to quarts

One quart is 2 pints, and each pint is 2 cups, so one quart is 4 cups. Cups are smaller, so divide: $20 \div 4 = 5$.

Answer: 5 qt.

Problem 10: Millimeters to centimeters

One centimeter is 10 millimeters, so divide: $450 \div 10 = 45$.

Answer: 45 cm.

Problem 11: Milliliters to liters

One liter is 1,000 milliliters, so divide: $3,500 \div 1,000 = 3.5$.

Answer: 3.5 L.

Problem 12: Minutes to hours

One hour is 60 minutes, so divide: $150 \div 60 = 2.5$. Since 0.5 hour is 30 minutes, this is also 2 hours 30 minutes.

Answer: 2.5 h or 2 h 30 min.

Problem 13: Complete the table

Yards to feet: multiply by 3. Feet to inches: multiply by 12 (or yards by 36).

$2 \times 3 = 6$ and $6 \times 12 = 72$. $4 \times 3 = 12$ and $12 \times 12 = 144$.

Answer: **2 yd = 6 ft = 72 in; 4 yd = 12 ft = 144 in.**

Yards	Feet	Inches
1	3	36
2	6	72
4	12	144

The completed table.

Problem 14: Compare lengths

Change yards to inches: $3 \times 36 = 108$. Since $108 > 100$, the yard measure is greater.

Answer: 3 yd is greater than 100 in.

Problem 15: Counting on a line plot

Count the X marks above $\frac{1}{2}$: there are 4. Longer than $\frac{1}{2}$ means $\frac{3}{4}$ (2 marks) and 1 (1 mark): $2 + 1 = 3$.

Answer: **4 sprouts are exactly 1/2 inch; 3 sprouts are longer.**

Problem 16: Range of rainfall

The greatest amount is $\frac{7}{8}$ inch and the least is $\frac{1}{8}$ inch.

$$\frac{7}{8} - \frac{1}{8} = \frac{6}{8} = \frac{3}{4}.$$

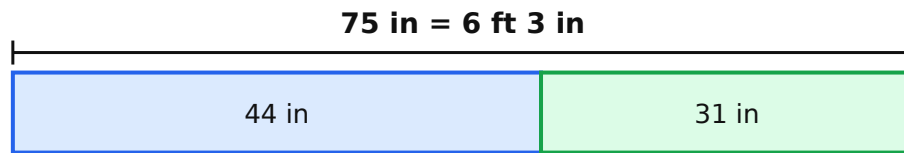
Answer: $\frac{3}{4}$ in.

Problem 17: Two ribbons

First ribbon: $3 \times 12 + 8 = 44$ in. Second ribbon: $2 \times 12 + 7 = 31$ in.

Total: $44+31=75$ in. Then $75\div 12=6$ with remainder 3.

Answer: **75 in, which is 6 ft 3 in.**



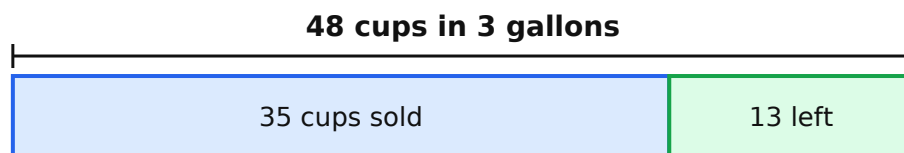
Both ribbons in inches.

Problem 18: Lemonade stand

A gallon is 16 cups, so the cooler holds $3\times 16=48$ cups.

Left over: $48-35=13$.

Answer: **13 cups.**



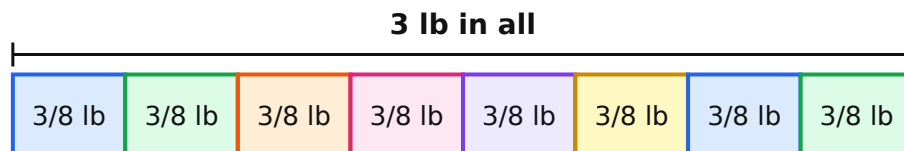
The cooler holds 48 cups.

Problem 19: Trail mix bags

Write every weight in eighths and add: $\frac{1}{8}+\frac{2}{8}+\frac{2}{8}+\frac{3}{8}+\frac{3}{8}+\frac{4}{8}+\frac{4}{8}+\frac{5}{8}=\frac{24}{8}=3$ pounds.

Equal share: $3\div 8=\frac{3}{8}$ pound.

Answer: **3 lb in all; $\frac{3}{8}$ lb per bag.**



Eight equal bags of $\frac{3}{8}$ pound.

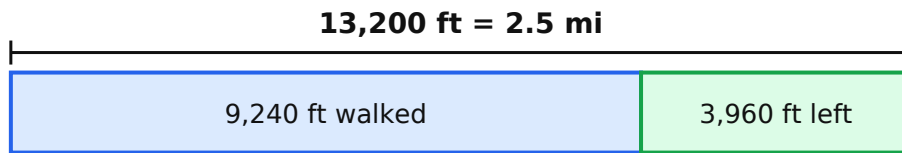
Problem 20: Hiking trail

The trail is $2.5\times 5,280=13,200$ feet long.

Feet left: $13,200-9,240=3,960$.

In miles: $3,960 \div 5,280 = 0.75$.

Answer: **3,960 ft, which is 0.75 mi.**



The whole trail in feet.

Problem 21: Water bottles

Total water: $3 \times 750 = 2,250$ mL. The jug holds $2 \times 1,000 = 2,000$ mL.

$2,250 - 2,000 = 250$, so the water is 250 mL too much.

Answer: **No; 250 mL (0.25 L) would not fit.**

Problem 22: Pancake milk

Milk needed: $6 \times 3 = 18$ cups. One quart is 4 cups, so $18 \div 4 = 4.5$ cartons.

He cannot buy half a carton, so he buys 5 cartons. They hold $5 \times 4 = 20$ cups, and $20 - 18 = 2$ cups are left.

Answer: **5 cartons, with 2 cups left over.**