

# Measurement Word Problems

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_ / 24

## Quick Review

Measurement word problems mix **converting units** with **adding, subtracting, multiplying, or dividing**. The smart first step is to make sure every number uses the **same unit**. If one length is in meters and another is in centimeters, change them both to centimeters before you do any math. Remember: going to a **smaller** unit means **multiply**, and the number gets bigger. After the units match, just solve the problem the normal way. **Always label your answer** with the correct unit so the reader knows what the number means.

◇ **Example:** A ribbon is 3 meters long. Sam cuts off 80 centimeters. How many centimeters of ribbon are left?  
 ⇒ The two measurements use different units, so let's make them match. Change 3 meters into centimeters: since  $1\text{ m} = 100\text{ cm}$ , that is  $3 \times 100 = 300\text{ cm}$ . Now both numbers are in centimeters, so we can subtract:  $300 - 80 = 220$ . Sam has 220 cm of ribbon left. Don't forget the label — centimeters!

**Answer:** 220 cm

## PRACTICE

Solve each problem. Convert units first when you need to.

1. A rope is 2 m long. Add 50 cm. Total in cm? \_\_\_\_\_
2. A trip took 1 hour and 20 minutes. How many minutes is that? \_\_\_\_\_
3. A bag holds 3 kg. Remove 500 g. Weight in g? \_\_\_\_\_
4. A board is 4 ft long. Cut off 5 in. Length in inches? \_\_\_\_\_
5. A jug holds 2 L. Pour out 300 mL. Amount left in mL? \_\_\_\_\_
6. A song is 3 minutes long. How many seconds is that? \_\_\_\_\_
7. A path is 1 km long. Walk 400 m. Meters left? \_\_\_\_\_
8. Three shelves are each 2 ft long. Total length in inches? \_\_\_\_\_
9. A pitcher holds 4 L. Share it into 4 equal cups. mL per cup? \_\_\_\_\_
10. A movie is 2 hours and 15 minutes. Total minutes? \_\_\_\_\_
11. A wall is 5 m long. Add 75 cm. Total in cm? \_\_\_\_\_
12. A box weighs 2 kg. Add 250 g. Total in g? \_\_\_\_\_
13. A ribbon is 6 ft long. Cut into 3 equal pieces. Inches per piece? \_\_\_\_\_
14. A recess is 25 minutes. How many seconds is that? \_\_\_\_\_
15. Two bottles hold 3 L each. Total amount in mL? \_\_\_\_\_
16. A trail is 2 km long. Bike 1,300 m. Meters left? \_\_\_\_\_
17. A cat weighs 4 kg. A kitten weighs 600 g. Difference in g? \_\_\_\_\_
18. A plank is 9 ft long. Cut off 2 ft. Length left in inches? \_\_\_\_\_
19. A class is 1 hour long. 35 minutes have passed. Minutes left? \_\_\_\_\_
20. Four jugs hold 2 L each. Total amount in mL? \_\_\_\_\_

## Word Problems

21. Noah ran for 1 hour and 45 minutes on Saturday. How many minutes did he run in all? \_\_\_\_\_
22. A bag of flour weighs 3 kilograms. A baker uses 750 grams. How many grams of flour are left? \_\_\_\_\_
23. Ava has 5 meters of yarn. She cuts it into 5 equal pieces for a craft project. How long is each piece in centimeters? \_\_\_\_\_
24. A juice cooler holds 4 liters. Students drink 1,500 milliliters at lunch. How many milliliters are left? \_\_\_\_\_



## Answer Keys

- |             |                 |
|-------------|-----------------|
| 1. 250 cm   | 13. 24 in       |
| 2. 80 min   | 14. 1,500 sec   |
| 3. 2,500 g  | 15. 6,000 mL    |
| 4. 43 in    | 16. 700 m       |
| 5. 1,700 mL | 17. 3,400 g     |
| 6. 180 sec  | 18. 84 in       |
| 7. 600 m    | 19. 25 min      |
| 8. 72 in    | 20. 8,000 mL    |
| 9. 1,000 mL | 21. 105 minutes |
| 10. 135 min | 22. 2,250 grams |
| 11. 575 cm  | 23. 100 cm      |
| 12. 2,250 g | 24. 2,500 mL    |

### Step-by-Step Explanations

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|---|--|
| <p>1. Change 2 m to 200 cm, then add: <math>200 + 50 = 250</math> cm.</p> <p>2. 1 hour = 60 min, then <math>60 + 20 = 80</math> min.</p> <p>3. Change 3 kg to 3,000 g, then <math>3,000 - 500 = 2,500</math> g.</p> <p>4. 4 ft = 48 in, then <math>48 - 5 = 43</math> in.</p> <p>5. 2 L = 2,000 mL, then <math>2,000 - 300 = 1,700</math> mL.</p> <p>6. 1 min = 60 sec, so <math>3 \times 60 = 180</math> sec.</p> <p>7. 1 km = 1,000 m, then <math>1,000 - 400 = 600</math> m.</p> <p>8. Each shelf is 24 in, so <math>3 \times 24 = 72</math> in.</p> <p>9. 4 L = 4,000 mL, then <math>4,000 \div 4 = 1,000</math> mL.</p> <p>10. 2 hours = 120 min, then <math>120 + 15 = 135</math> min.</p> <p>11. 5 m = 500 cm, then <math>500 + 75 = 575</math> cm.</p> <p>12. 2 kg = 2,000 g, then <math>2,000 + 250 = 2,250</math> g.</p> <p>13. 6 ft = 72 in, then <math>72 \div 3 = 24</math> in.</p> <p>14. 1 min = 60 sec, so <math>25 \times 60 = 1,500</math> sec.</p> | <p>15. Each bottle is 3,000 mL, so <math>2 \times 3,000 = 6,000</math> mL.</p> <p>16. 2 km = 2,000 m, then <math>2,000 - 1,300 = 700</math> m.</p> <p>17. 4 kg = 4,000 g, then <math>4,000 - 600 = 3,400</math> g.</p> <p>18. <math>9 - 2 = 7</math> ft left, and <math>7 \times 12 = 84</math> in.</p> <p>19. 1 hour = 60 min, then <math>60 - 35 = 25</math> min.</p> <p>20. Each jug is 2,000 mL, so <math>4 \times 2,000 = 8,000</math> mL.</p> <p>21. Change 1 hour to minutes: <math>1 \times 60 = 60</math> min. Then add the extra time: <math>60 + 45 = 105</math> minutes.</p> <p>22. Change 3 kg to grams: <math>3 \times 1,000 = 3,000</math> g. Then subtract what was used: <math>3,000 - 750 = 2,250</math> g.</p> <p>23. Change 5 m to centimeters: <math>5 \times 100 = 500</math> cm. Then share it equally: <math>500 \div 5 = 100</math> cm per piece.</p> <p>24. Change 4 L to milliliters: <math>4 \times 1,000 = 4,000</math> mL. Then subtract: <math>4,000 - 1,500 = 2,500</math> mL.</p> |
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