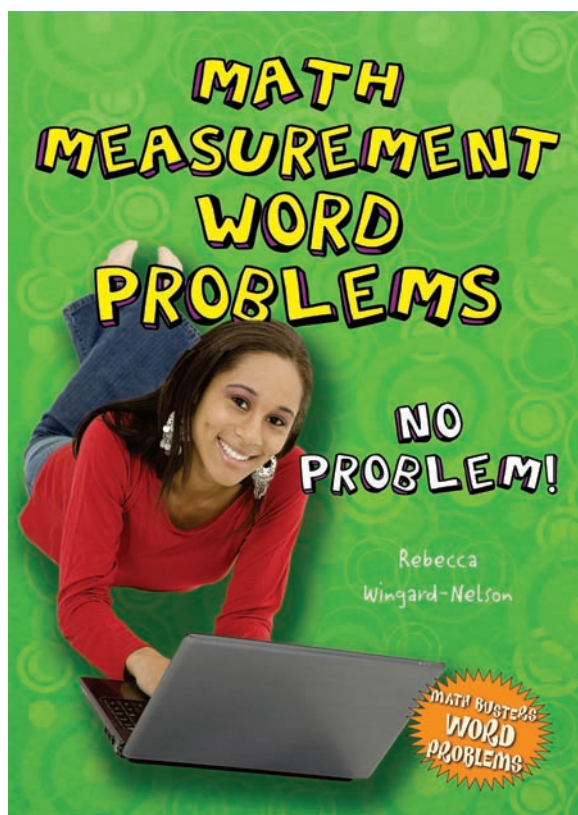


Math Busters Word Problems Reproducible Worksheets

Reproducible Worksheets
for:

Math Measurement Word Problems No Problem!

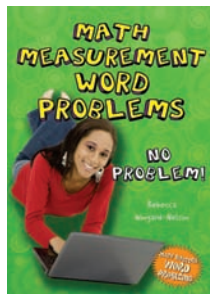


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Math Busters Word Problems Reproducible Worksheets

Reproducible Worksheets for:

Math Measurement Word Problems No Problem!



These worksheets practice math concepts explained in **Math Measurement Word Problems: No Problem!** (ISBN: 978-0-7660-3369-6), written by **Rebecca Wingard-Nelson**.

Math Busters Word Problems reproducible worksheets are designed to help teachers, parents, and tutors use the books from the **Math Busters Word Problems** series in the classroom and the home. The answers to the problems are contained in the Answers section starting on page 56.

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Name _____

Date _____

Problem-Solving Steps

1. What are the four problem-solving steps?
2. What can you do to help yourself understand a question?
3. Name at least three plans you can use to solve math problems.
4. What should you do if your plan for solving a problem does not work?
5. How can reviewing the problem after you have an answer help you in the future?

Name _____

Date _____

Problem-Solving Steps

Alex weighs 136 pounds. He would like to wrestle in the next higher junior division weight class. The next weight class is from 139 pounds to 152 pounds. How many pounds does Alex need to gain?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Is the math correct?

What other plan could you use to solve this problem?

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Name _____

Date _____

Measurement Basics

1. Which measurement system is based on early English measurement units?
2. What is the name of the measurement system that uses multiples of ten?
3. Name three standard measurement units of length, from smallest to largest.
4. What standard unit of length is about the same as the length of a person's arm?
5. What metric unit of length is about the same as the length of a person's arm?

Name _____

Date _____

Measurement Basics

1. How many meters are in one decameter?
2. How many nanograms are in a gram?
3. How many cups are in a pint?
4. How many ounces are in a pound?
5. What is the basic unit for measuring length in the metric system?
6. What is the basic unit for measuring capacity in the metric system?
7. What is the basic unit for measuring mass in the metric system?
8. Which measurement system is easier for you to use, and why?

Name _____

Date _____

Length: Standard Units

Adam is 6 feet tall. How tall is Adam in inches?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Length: Standard Units

A football field is 100 yards from end to end. What is the length of a football field in feet?

Patel ran 2 miles. How far did Patel run in feet?

Name _____

Date _____

Converting to Larger Units

Freddie ran the football 39 feet for a touchdown. In yards, how far did Freddie run the football?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Converting to Larger Units

A door is 96 inches from top to bottom. How tall is the door in feet?

Drew jogged 15,840 feet in 45 minutes. How many miles did he jog?

Name _____

Date _____

Use a Fraction

Karl bought 2,640 feet of fabric to make curtains for the auditorium walls. How many miles of fabric did he buy?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Use a Fraction

Use a fraction to find the length in feet of a shoe that is 9 inches long.

Use a fraction to find the number of miles of sidewalk there are in 4,400 yards of sidewalk.

Name _____

Date _____

Length: Metric Units

A 2.5K race is called a 2.5K because the race is 2.5 kilometers long. How many meters long is a 2.5K race?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Length: Metric Units

Dakota has a dresser that is 27 decimeters wide. She has a space for the dresser that is 3 meters wide. How many decimeters of space does she have?

Tori measured a beetle in biology that was 2,600 micrometers long. What is the length of the beetle in millimeters?

Name _____

Date _____

Estimating Length

Estimate the length of your index finger.

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Estimating Length

About how far is it from your front door to the road or street?

About how long in inches is your arm from wrist to elbow?

Name _____

Date _____

Adding and Subtracting Measurements

Kevin has a new television that is 24 inches tall. If Kevin sets the television on a 3-foot-tall stand, how far from the floor will the top of the television be?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Adding and Subtracting Measurements

A science club made pine wood cars. Each car was set on the same track and then released. The distance traveled was measured. Lillian's car went the farthest, 27 meters. Jared's car went 168 decimeters. How much farther did Lillian's car travel?

Becky and Keith each ran for exactly 20 minutes on a treadmill. Keith's treadmill said he had run 10,000 feet. Becky's treadmill said she had run 2 miles. Who ran farther, and how much farther?

Name _____

Date _____

Perimeter

After school Quentin walks his dog around the perimeter of the dog park. The park is a square with a side length of 450 feet. What is the perimeter of the park?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Perimeter

Greta is putting a border around one of the walls in her bedroom to make it look like a huge picture frame. The wall is 8 feet high, and the room is 12 feet wide. How much border does Greta need?

Joslin needs to put fence around a square vegetable garden with a side length of 8 yards. How many feet of fence does he need?

Name _____

Date _____

Area

**Bella's bedroom is 3 meters wide and 6 meters long.
Gina's bedroom is a 5-meter square. Who has the bigger
bedroom?**

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Area

Nico has a rectangular flower garden that measures 2 m by 32 m. One bag of fertilizer can cover 16 m^2 . How many bags will he need to cover the entire garden?

Elena wants new carpeting for her exercise room. The room is a 14-foot square. If carpeting costs \$2 per square foot, how much will it cost to carpet the room?

Name _____

Date _____

Capacity

Once a day Cici waters the saplings she's donating to a city park. Each sapling gets 2 cups of water. If Cici has 20 saplings, how much water does she use in a week?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Capacity

Jackson bought 6 gallons of punch for a pizza party. After the party there were still 6 quarts of punch left. How much punch was used at the party?

Michael read that he is supposed to drink 144 ounces of water a day. How many cups of water is 144 ounces?

Name _____

Date _____

Metric Capacity

Heather had six 2-liter bottles of pop. She poured the pop into glasses which each have a capacity of 3 deciliters. How many glasses did she fill before she ran out of pop?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

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Name _____

Date _____

Metric Capacity

A vial of medicine contains 3 centiliters of liquid. One dose of the medicine is 5 milliliters. How many doses of medicine are in the vial?

It took 1,430 liters of fuel to fill a 2-kiloliter fuel tank. How many liters of fuel were in the tank before it was filled?

Name _____

Date _____

Error in Measurement

Mark is using a ruler that is marked in centimeters. How far off can Mark's measurement be from exact without being incorrect when he measures to the nearest centimeter?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Error in Measurement

Corey says that a graduated cylinder contains 16 milliliters of liquid. If the smallest unit marked on the container is milliliters, what is the greatest amount of liquid that could be in the container?

On a ruler marked in millimeters, what is the smallest measurement that can be read as 27 millimeters?

Name _____

Date _____

Volume

The cargo area in a van measures 8 feet long by 5 feet wide by 4 feet deep. How many cubic feet of cargo will fit in the cargo area?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Volume

A box measures 6 centimeters high, 12 centimeters wide, and 30 centimeters long. What is the volume of the box?

A bounce house is the shape of a cube with a side length of 3 yards. What is the volume of the bounce house?

Name _____

Date _____

Change Dimensions

Karen's science group built a robot that carries a 3-cm cube. Jacob's group built a robot that carries a 9-cm cube. How many times larger is the volume of the 9-cm cube than the 3-cm cube?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

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Name _____

Date _____

Change Dimensions

A square piece of paper measures 5 inches a side. If the length of a side is doubled, how does the area of the paper change?

One cube has a side length of 1 meter. Another has a side length of 50 centimeters. How many times larger is the 1 meter cube?

Name _____

Date _____

Weight or Mass

Suppose your weight on Earth is 153 pounds. The force of gravity on Mars is only about $\frac{1}{3}$ of the force of gravity on Earth. If you go to Mars and stand on a scale, how much would you weigh?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does the answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Weight or Mass

A truck weighs 2 tons. The camper it is pulling weighs 3,200 pounds. Which is heavier, and by how much?

When Maci was born she weighed exactly 9 pounds. Maci now weighs 14 times as much as she did when she was born. How much does Maci weigh now?

Name _____

Date _____

Weight

Sammi's laptop weighs 6.25 pounds. What is the weight of Sammi's laptop in ounces?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Weight

Dean bought 1.75 pounds of swiss cheese from the deli. Then he bought a 24-ounce package of cheddar cheese in the dairy section. Which type of cheese did he have more of?

Ellen combined 12 ounces of peanuts, 9 ounces of cereal, 6 ounces of pretzels, 5 ounces of cheese crackers, and 16 ounces of chocolate chips to make a snack mix. How many pounds of snack mix did Ellen make?

Name _____

Date _____

Use Mental Math

The mass of a penny is 2.5 grams. The mass of a nickel is 5 grams. About how many nickels are in a bag containing 1 kilogram of nickels?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Use Mental Math

A crayon has a mass of 30 grams. How many crayons can be made with 30 kilograms of colored wax?

Geri takes 500 milligrams of vitamin C every day. How many grams of vitamin C does Geri take in 30 days?

Name _____

Date _____

Estimating Weight

To seed a lawn with grass, the package says to plant 1.5 ounces of grass seed for every square yard of lawn area. About how much grass seed does Amanda need to seed a square backyard with a side length of 9 yards?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How does the problem tell you to solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Estimating Weight

Vincent decided he needs about 156 ounces of grass seed. The grass seed is sold in 1-pound bags. About how many bags of seed does Vincent need?

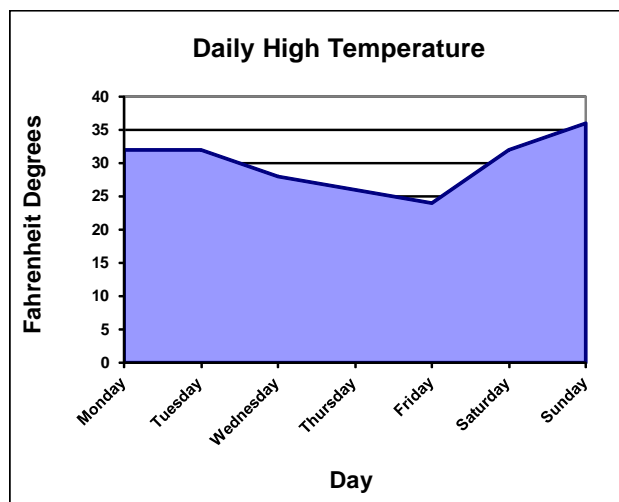
The music boosters are making chicken barbeque to sell at the annual arts festival. They estimate they will sell about 200 servings. Each serving is 7 ounces of barbeque chicken. About how many pounds of chicken do they need?

Name _____

Date _____

Read a Graph

Holiday Lodge will only manufacture snow when the high temperature for the day is below 30°F . The high temperatures for a week are shown in the graph to the right. How many of the days shown would Holiday Lodge have manufactured snow?



Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

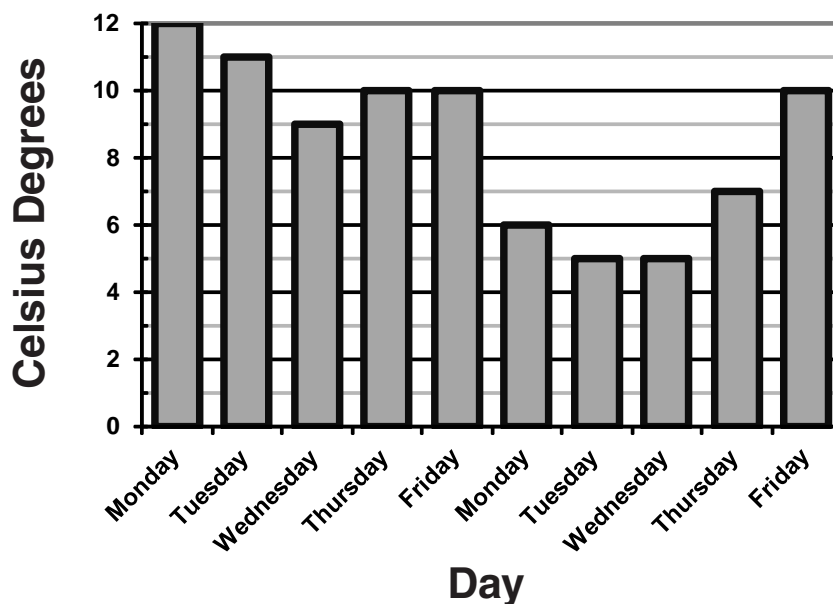
Look back.

Does your answer match the question?

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Read a Graph

Temperature at 11 A.M.



Students are permitted to spend their lunch break outside on days when it is not raining and the temperature at 11 A.M. is above 8°C . If there was no rain, how many days over the period shown could students have spent their break outside?

Name _____

Date _____

Use a Table

Marshall will only go in the pool if the water temperature is 77°F or warmer. The thermometer in the pool reads 28°C. Will Marshall go in the pool?

Celsius	Fahrenheit
-5	23
0	32
5	41
10	50
15	59
20	68
25	77
30	86

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

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Name _____

Date _____

Use a Table

Water boils at 100°C . At what temperature does water boil in Fahrenheit degrees?

Celsius	Fahrenheit
100	212
40	104
37	98.6
30	86
21	70
10	50
0	32
-40	-40

Julia likes to keep the temperature in her house at 70°F . If the temperature in her house is now 28°C , does she think it is too cool, or too warm?

Name _____

Date _____

Time Basics

1. Which measurements of time are not always constant?
2. How many days are in April?
3. How many days are in one week?
4. How many days are in two weeks?
5. How many hours are in one day?
6. How many months have 30 days?
7. How many months have 31 days?

Name _____

Date _____

Time Basics

1. How many seconds are in a minute?
2. How many minutes are in an hour?
3. How many seconds are in an hour?
4. Why are there not exactly 365 days in every year?
5. How many days are there in four consecutive years?
6. What do A.M. and P.M. stand for, and what do they mean?

Name _____

Date _____

Calendars

Stephen can get his driver's license this year on his birthday, May 16th. If today is January 1st and it is not a leap year, how many more days are there until Stephen's birthday?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Calendars

Travis spent from March 3rd until April 9th in California with his father. How many days did they spend in California?

Sharon graduates from high school on June 3rd. She is working during fall quarter and starts classes at college on January 8th. How many days are there between Sharon's graduation and her first college class?

Name _____

Date _____

Elapsed Time

Michelle put a cake in the oven to bake at 6:17 P.M. She took it out at 7:02 P.M. How long did the cake bake?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

Elapsed Time

The bus ride to Aaron's band competition was 5 hours and 42 minutes long. If they left the school at 8:35 A.M., what time did they arrive at the competition?

How long did Chen sleep if he went to bed at 10:40 P.M., and got up at 7:10 A.M.?

Name _____

Date _____

Time Zones

Kendall lives in Denver.
Kendall's grandma lives
in Boston. She does not like
him to call after 7:30 P.M.
Eastern Standard Time.
What time is that in Denver?



Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

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Name _____

Date _____

Time Zones

When it is 3 P.M. Pacific Time, it is 4 P.M. Mountain Time, 5 P.M. Central Time, and 6 P.M. Eastern Time.

Joy's plane leaves Atlanta at 1 P.M. (Eastern Time) and flies to Memphis (Central Time). The flight takes exactly one hour. What time will Joy arrive in Memphis?

Aiden lives in New York (Eastern Time). His sister lives in Los Angeles (Pacific Time). If Aiden sends his sister a text message at 10:30 A.M. and it arrives immediately, what time does his sister get the message?

Name _____

Date _____

Mixed Measures

David took 12 minutes 58 seconds to type a 500-word essay. Anna took 15 minutes 12 seconds to type the same essay. How much longer did Anna take to type the essay than David?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

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Name _____

Date _____

Mixed Measures

Emile spent 40 minutes making bread dough. The bread had to rise for 1 hour and 20 minutes, then bake for another 45 minutes. In all, how long did it take to make the bread?

Brittany and Brant took turns driving to their cousin's house. The total drive was 6 hours 22 minutes. Brittany drove 4 hours 50 minutes. How long did Brant spend driving?

Name _____

Date _____

More Mixed Measures

Gina is camping for 1 week 2 days in each of six states over her vacation. How much time will she camp in those six states in all?

Read and understand the problem.

What does the problem ask you to find?

What information do you need to solve the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer match the question?

Does the answer make sense?

Did your plan work for this problem?

Name _____

Date _____

More Mixed Measures

Barry has 2 hours and 15 minutes to complete a 45-problem test. On average, how long can he spend on each problem?

Jane averages 2 minutes 16 seconds to run one lap around the track. At that speed, how long does it take Jane to run 4 laps?

Answers

Problem-Solving Steps

Page 2: 1. Read and understand the problem. Make a plan. Solve the problem. Look back.

2. Possible answers: Read the problem again. Write the problem in different words.

3. Possible answers: Write an equation. Make a diagram. Work backward.

4. Try a different plan. Don't give up.

5. It helps you know how to solve similar problems.

Page 3: Read and understand the problem.

The number of pounds Alex needs to gain to wrestle in the next higher weight class.

Alex's current weight and the weight restrictions of the next higher class.

Make a plan. Possible answer: Write an equation.

Solve the problem. $139 - 136 = 3$. Alex needs to gain 3 pounds.

Look back. Answers may vary.

Measurement Basics

Page 4: 1. The standard or customary system.

2. The metric system.

3. Possible answers: inches, feet, yards or feet, yards, miles

4. A yard.

5. A meter.

Page 5: 1. 10

2. One billion (1,000,000,000)

3. 2

4. 16

5. meter

6. liter

7. gram

8. Possible answers: The standard system is easier, because I'm used to it. OR The metric system is easier, because tens are easy to use and the same prefixes are used for all of the different base units.

Length: Standard Units

Page 6: Read and understand the problem.

Adam's height in inches.

Adam's height in feet and the number of inches in a foot.

Make a plan. Possible answer: Use addition.

Solve the problem. Adam is 72 inches tall.

Look back. Answers may vary.

Page 7: A football field is 300 feet from end to end.

Patel ran 10,560 feet.

Converting to Larger Units

Page 8: Read and understand the problem.

The number of yards Freddie ran the football.

The number of feet Freddie ran the football and the number of feet in a yard.

Make a plan. Possible answer: Write an equation.

Solve the problem. Freddie ran the football 13 yards.

Look back. Answers may vary.

Page 9: The door is 8 feet tall.

Drew jogged 3 miles.

Use a Fraction

Page 10: Read and understand the problem.

The number of miles of fabric Karl bought.

The number of feet of fabric Karl bought.

Make a plan. Possible answer: Use a fraction.

Solve the problem. Karl bought $\frac{1}{2}$ a mile of fabric.

Look back. Answers may vary.

Page 11: The shoe is $\frac{3}{4}$ feet long.

There are $2\frac{1}{2}$ miles of sidewalk in 4,400 yards.

Length: Metric Units

Page 12: Read and understand the problem.

The number of meters in a 2.5K race.

The number of meters in a kilometer.

Make a plan. Possible answer: Mental math.

Solve the problem. A 2.5K race is 2,500 meters long.

Look back. Answers may vary.

Page 13: Dakota has 30 decimeters of space.
The beetle is 2.6 millimeters long.

Estimating Length

Page 14: **Read and understand the problem.**

The length of your index finger.
Your finger and a way to find its length.

Make a plan. Estimate.

Solve the problem. Possible answers: 3 inches, or
8 centimeters.

Look back. Answers will vary.

Page 15: Answers will vary.

Answers will vary, units should be inches.

Adding and Subtracting Measurements

Page 16: **Read and understand the problem.**

The height of the television top when it is on the stand.
The height of the stand and the height of the television.

Make a plan. Possible answer: Write an equation.

Solve the problem. The top of the television will be 5 feet
or 60 inches from the floor.

Look back. Answers may vary.

Page 17: Lillian's car went 102 decimeters, or 10.2 meters, farther
than Jared's.

Becky ran 560 feet farther than Keith.

Perimeter

Page 18: **Read and understand the problem.**

The perimeter of the park.
The length of each side of the park.

Make a plan. Possible answer: Write an equation.

Solve the problem. The perimeter of the park is 1,800 feet.

Look back. Answers may vary.

Page 19: Greta needs 40 feet of border.

Joslin needs 96 feet of fence.

Area

Page 20: **Read and understand the problem.**

Which girl has the larger bedroom.

The size of each girl's bedroom.

Make a plan. Find the area of each bedroom and compare.

Solve the problem. Bella's bedroom is 18 m^2 . Gina's bedroom is 25 m^2 . Gina has the bigger bedroom.

Look back. Answers may vary.

Page 21: Nico needs 4 bags of fertilizer.

It will cost \$392 to carpet the room.

Capacity

Page 22: **Read and understand the problem.**

The amount of water Cici uses in a week.

The amount of water Cici uses on each sapling each day.

Make a plan. Possible answer: Break it apart.

Solve the problem. Each sapling gets 2 cups per day for 7 days, or 14 cups per week. There are 20 saplings.

$20 \times 14 = 280$ Cici uses 280 cups per week. (140 pints, 70 quarts, or $17 \frac{1}{2}$ gallons)

Look back. Answers may vary.

Page 23: $4 \frac{1}{2}$ gallons of punch were used at the party. (18 quarts)

There are 18 cups of water in 144 ounces.

Metric Capacity

Page 24: **Read and understand the problem.**

The number of glasses Heather filled.

The amount of pop she had poured and the capacity of each glass.

Make a plan. Possible answer: Write an equation.

Solve the problem. Heather poured 40 glasses of pop.

Look back. Answers may vary.

Page 25: The vial contains 6 doses of medicine.

There were 570 liters of fuel in the tank before it was filled.

Error in Measurement

Page 26: **Read and understand the problem.**

The amount of error Mark can have without being incorrect.
The precision of the ruler.

Make a plan. Possible answer: Use logical reasoning.

Solve the problem. Mark's measurement can be up to half a centimeter from exact and be correct.

Look back. Answers may vary.

Page 27: The greatest amount of liquid that could be in the container is 16.5 milliliters.

The smallest measurement that can be read as 27 millimeters is 26.5 millimeters.

Volume

Page 28: **Read and understand the problem.**

The volume of the cargo area in the van.

The length, width, and height of the cargo space.

Make a plan. Possible answer: Use a formula.

Solve the problem. The cargo area will hold 160 cubic feet of cargo.

Look back. Answers may vary.

Page 29: The volume of the box is 2,160 square centimeters.

The volume of the bounce house is 27 cubic yards.

Change Dimensions

Page 30: **Read and understand the problem.**

The number of times larger the 9-cm cube is than the 3-cm cube.

The volume of each cube.

Make a plan. Possible answer: Find the volumes using a formula, then compare.

Solve the problem. The volume of the 9-cm cube is 27 times larger than the volume of the 3-cm cube.

Look back. Answers may vary.

Page 31: The area of the paper changes by four times, from 25 square inches to 100 square inches.

The meter cube is 8 times larger than the 50-cm cube.

Weight or Mass

Page 32: **Read and understand the problem.**

The amount you would weigh on Mars.

Your weight and the difference in gravity between Mars and Earth.

Make a plan. Possible answer: Write an equation.

Solve the problem. You would weigh 51 pounds on a scale on Mars.

Look back. Answers may vary.

Page 33: The truck weighs 800 pounds more than the camper.

Maci now weighs 126 pounds.

Weight

Page 34: **Read and understand the problem.**

The weight of the laptop in ounces.

The weight of the laptop in pounds and the number of ounces in a pound.

Make a plan. Possible answer: Use multiplication.

Solve the problem. Sammi's laptop weighs 100 ounces.

Look back. Answers may vary.

Page 35: Dean had more of the swiss cheese.

Ellen made 3 pounds of snack mix.

Use Mental Math

Page 36: **Read and understand the problem.**

The approximate number of nickels in the bag.

The mass of one nickel and the mass of the nickels in the bag.

Make a plan. Possible answer: Use mental math.

Solve the problem. There are about 200 nickels in the bag.

Look back. Answers may vary.

Page 37: 1,000 crayons can be made with 30 kilograms of colored wax.

Geri takes 15 grams of vitamin C in 30 days.

Estimating Weight

Page 38: **Read and understand the problem.**

An estimate for the amount of grass seed Amanda needs.
The size of the yard and the amount of seed needed per square yard.

Make a plan. Possible answer: Estimate.

Solve the problem. Possible answer: 120 ounces of seed.

Look back. Answers may vary.

Page 39: Vincent needs about 10 bags of seed.

They need about 100 pounds of chicken.

Read a Graph

Page 40: **Read and understand the problem.**

The number of days on the graph that Holiday Valley would have made snow.

The temperature each day and the temperature at which Holiday Valley will make snow.

Make a plan. Possible answer: Read a graph.

Solve the problem. Holiday Valley would have made snow on three of the days shown.

Look back. Answers may vary.

Page 41: Over the time shown, students could have spent their break outside on 6 days.

Use a Table

Page 42: **Read and understand the problem.**

Whether or not Marshall will go in the pool.

The temperature of the water in the pool, and how warm the water must be before Marshall will swim.

Make a plan. Possible answer: Read the table.

Solve the problem. Yes, Marshall will go in the pool.

Look back. Answers may vary.

Page 43: Water boils at 212°F.

Julia thinks her house is too warm.

Time Basics

Page 44: 1. Months and years

2. 30

3. 7

4. 14

5. 24

6. 4

7. 7

Page 45: 1. 60

2. 60

3. 3,600

4. Every fourth year is a leap year and therefore has 366 days.

5. There are 1,461 days in 4 consecutive years.

6. A.M. stands for ante meridiem and means before midday, or before noon. P.M. stands for post meridiem and means after midday, or after noon.

Calendars

Page 46: **Read and understand the problem.**

The number of days until Stephen's birthday.

His birth date and the date now.

Make a plan. Possible answer: Break it apart.

Solve the problem. There are 135 days until Stephen's birthday.

Look back. Answers may vary.

Page 47: They were in California for 37 days.

There are 219 days between graduation and Sharon's first college class.

Elapsed Time

Page 48: **Read and understand the problem.**

The length of time the cake was in the oven.

What time the cake was put in the oven and what time it was taken out of the oven.

Make a plan. Possible answer: Count hours and minutes.

Solve the problem. The cake was in the oven for 45 minutes.

Look back. Answers may vary.

Page 49: They arrived at the competition at 2:17 P.M.
Chen slept 8 hours and 30 minutes.

Time Zones

Page 50: **Read and understand the problem.**

What time it is in Denver when it is 7:30 P.M. in Boston.

The difference in times between Boston and Denver.

Make a plan. Possible answer: Use the time zone map.

Solve the problem. When it is 7:30 P.M. in Boston, it is
5:30 P.M. in Denver.

Look back. Answers may vary.

Page 51: Joy will arrive in Memphis at 1 P.M. Central Time.
Aiden's sister gets the text message at 7:30 A.M.

Mixed Measures

Page 52: **Read and understand the problem.**

The difference in time it took David and Anna to type
the essay.

The amount of time each person took to type.

Make a plan. Possible answer: Write an equation.

Solve the problem. It took Anna 2 minutes and 14 seconds
longer to type the essay.

Look back. Answers may vary.

Page 53: In all, the bread took 2 hours 45 minutes to make.
Brant spent 1 hour 32 minutes driving.

More Mixed Measures

Page 54: **Read and understand the problem.**

The total amount of time Gina is camping in the six states.

How long Gina is spending in each state.

Make a plan. Possible answer: Write an equation.

Solve the problem. Gina will be camping for 7 weeks
5 days in all.

Look back. Answers may vary.

Page 55: Barry can spend about 3 minutes on each problem.
It takes Jane 9 minutes 4 seconds to run 4 laps.