

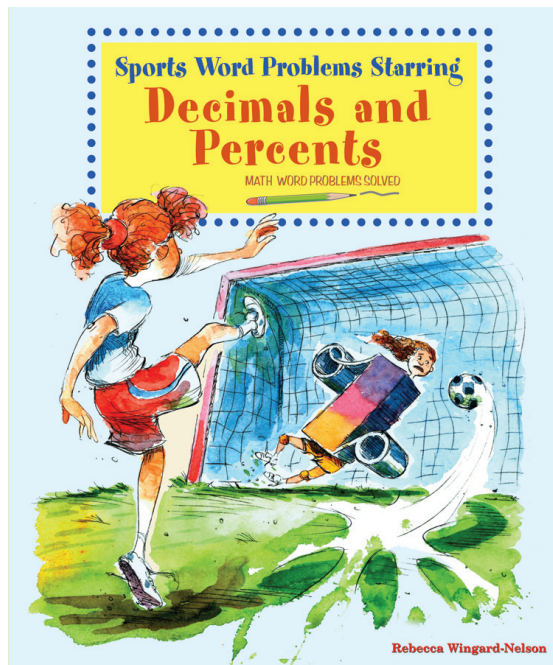
MATH WORD PROBLEMS SOLVED



Math Word Problems Solved Reproducible Worksheets

Reproducible Worksheets
for:

Sports Word Problems Starring Decimals and Percents

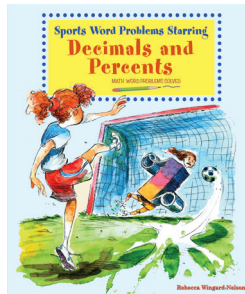


These worksheets are reproducible for educational use only and are not for resale.
© 2009 Enslow Publishers, Inc.

Math Word Problems Solved Reproducible Worksheets

Reproducible Worksheets for:

Sports Word Problems Starring Decimals and Percents



These worksheets practice math concepts explained in **Sports Word Problems Starring Decimals and Percents** (ISBN: 978-0-7660-2920-0), written by **Rebecca Wingard-Nelson**.

Math Word Problems Solved reproducible worksheets are designed to help teachers, parents, and tutors use the books from the **Math Word Problems Solved** series in the classroom and the home. The answers to the problems are contained in the **Answers** section starting on page 38.

Teachers, librarians, tutors, and parents are granted permission and encouraged to make photocopies of these worksheets.

These worksheets are reproducible for educational use only and are not for resale.
© 2009 Enslow Publishers, Inc.

Visit www.enslow.com and search for the **Math Word Problems Solved** series to download worksheets for the following titles:

**Amusement Park Word Problems
Starring Pre-Algebra**
978-0-7660-2922-4

**Animal Word Problems
Starring Addition and Subtraction**
978-0-7660-2917-0

**Big Truck and Car Word Problems
Starring Multiplication and Division**
978-0-7660-2918-7

**Fun Food Word Problems
Starring Fractions**
978-0-7660-2919-4

**Space Word Problems
Starring Ratios and Proportions**
978-0-7660-2921-7

**Sports Word Problems
Starring Decimals and Percents**
978-0-7660-2920-0

Titles in this series can be purchased directly from:

Enslow Publishers, Inc.
40 Industrial Road, Box 398
Berkeley Heights, NJ 07922-0398
Phone: 1-800-398-2504
email: customerservice@enslow.com
Web Page: <http://www.enslow.com>

Problem-Solving Steps

Here's the problem.

A scuba tank contained 39.6 cubic feet of breathing gas when a diver entered the water. After the dive, 25.6 cubic feet of gas was left. How much gas was used on the dive?

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

Is the math correct?

What other plan could you use to solve this problem?

Problem-Solving Steps

Here's the problem.

Two divers swam from a buoy to a boat. The first diver took 1.15 minutes. It took the second diver 2.38 minutes. How much faster did the first diver reach the boat?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

Scuba divers collected 50.4 pounds of sponges on their first dive and 54.8 pounds of sponges on their second dive. How many more pounds were collected on the second dive than on the first?

© Enslow Publishers, Inc. Sheets are reproducible for educational use only.

Clue Words

Here's the problem.

Wendell ran 2.2 miles in the morning and 3.5 miles in the afternoon. Morning and afternoon together, how many miles did he run?

What clue word is used in this problem?

What operation should you use?

Here's the problem.

Wendell ran 2.2 miles each morning for 3 days. How many miles did he run in all?

What clue word is used in this problem?

What operation should you use?

Want to do more? See if you can go back and solve the problems using the four problem-solving steps.

© Enslow Publishers, Inc. Sheets are reproducible for educational use only.

Clue Words

Here's the problem.

One week Wendell ran 20.8 miles. He ran the same distance four times during the week. How far did he run each time?

What clue word is used in this problem?

What operation should you use?

Here's the problem.

Wendell ran 2.2 miles in the morning and 3.5 miles in the afternoon. How much farther did he run in the afternoon than in the morning?

What clue word is used in this problem?

What operation should you use?

Want to do more? See if you can go back and solve the problems using the four problem-solving steps.

Clue Words

Here's the problem.

Kate drank 3.5 pints of water per game at each of her soccer games. She had two games. How much water did she drink?

What clue word is used in this problem?

What operation should you use?

Here's the problem.

Kate drank 7 pints of water at her soccer games. If she played two games, how much water did she drink on average at each game?

What clue word is used in this problem?

What operation should you use?

Want to do more? See if you can go back and solve the problems using the four problem-solving steps.

Clue Words

Here's the problem.

Kate drank 4 pints of water at a morning soccer game. She drank another 2.3 pints of water at an afternoon game. How much water did she drink at the two games combined?

What clue word is used in this problem?

What operation should you use?

Here's the problem.

Kate drank 4 pints of water at a morning soccer game. She drank another 2.3 pints of water at an afternoon game. How much more water did she drink at the morning game?

What clue word is used in this problem?

What operation should you use?

Want to do more? See if you can go back and solve the problems using the four problem-solving steps.

Draw a Picture

Here's the problem.

In the sport of curling, a rock is thrown over the ice toward a target. The closest rock to the center scores a point. One rock stopped 0.4 meters from the center of the target. Another stopped 0.5 meters from the center. Which rock would score a point? Draw a picture to help solve this problem.

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

What plan does this problem tell you to use?

Solve the problem.

Carry out your plan.

Look back.

Could you have solved this problem a different way?

Draw a Picture

Here's the problem.

The curling sheet is kept at a temperature of 23° Fahrenheit. If the temperature is at 27.5° Fahrenheit, how many degrees does it need to be lowered? Draw a picture to help solve this problem.

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

Samantha's family saves quarters in a jar to use for special family activities. Their local curling club is running a special offer, and the family wants to give curling a try. If the cost is \$20.50 for the entire family, how many quarters will they need to save?

Use a Model

Here's the problem.

A luge course is 1,340.6 meters long. To the nearest meter, how long is the course? Use a model to help solve this problem.

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

What kind of model can you use to solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

Use a Model

Here's the problem.

Garments worn by a luge athlete cannot weigh more than 8.8 pounds. Round this weight to the nearest pound. Use a model to solve this problem.

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

The first international luge race took place on a road that was 4.2 kilometers long. If a luger raced the course two times, how many kilometers did he race in all?

Equations

Here's the problem.

Valentino bought two rock-climbing ropes. The shorter one cost \$35.20 and the longer one cost \$80.75. How much did the ropes cost together? Write an equation to solve this problem.

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

What plan does the problem tell you to use?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

What other plan could you use to solve this problem?

Equations

Here's the problem.

The first day of their vacation, Olivia and her family hiked 8.05 kilometers. The second day, they hiked 9.64 kilometers. How many more kilometers did they hike the second day than the first?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

Each time Kira rock climbs, she spends 4.5 hours driving to the Catskill Mountains and back. If she went rock climbing three times, how much time did she spend driving?

© Enslow Publishers, Inc. Sheets are reproducible for educational use only.

Use a Table

Here's the problem.

Adrian's shoe size is 12, and Barney's shoe size is 16. Use the information from the table to find the difference in length (centimeters, cm) between a size 12 and a size 16 shoe.

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Did you include units in your answer?

What other plan could you use to solve this problem?

Shoe Size	Heel-to-Toe Length (cm)
10	27.8
12	28.73
14	30.48
16	32.23
18	33.81
20	35.56

Use a Table

Here's the problem.

Gage wears a size 14 shoe. Use the information from the table to find how long in centimeters his shoes are together if he places them heel to toe.

Read and understand the problem.

Shoe Size	Heel-to-Toe Length (cm)
10	27.8
12	28.73
14	30.48
16	32.23
18	33.81
20	35.56

Make a plan.

Solve the problem.

Look back.

Want to try another one?

Samson's shoe size is 18, and Noah's shoe size is 14. Use the information from the table to find the difference in length (centimeters, cm) between a size 18 and a size 14 shoe.

Find the Hidden Information

Here's the problem.

Kaitlin is training to run a marathon. Each day she runs 6.5 kilometers. How many kilometers does she run in a week?

Read and understand the problem.

What do you know?

What are you trying to find?

What information is hidden in the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

Is the math correct?

Find the Hidden Information

Here's the problem.

The first month when Harry trains for a marathon, he runs 2.5 miles each day. Every month he runs one mile farther per day than the month before. If this pattern continues, how many miles will he be running each day after a year?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

Jaden bought 3 packages of matching socks for her track team. If there are a dozen pairs of socks in a package, how many pairs of socks did she buy?

© Enslow Publishers, Inc. Sheets are reproducible for educational use only.

Patterns in Tens

Here's the problem.

Jay wants to snowboard a slope at least 10 times today. In 15.2 minutes he can ride the lift to the top of the slope, and then snowboard down. At this rate, how many minutes will it take Jay to ride the slope 10 times?

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Is the math correct?

What other plan could you use to solve this problem?

Patterns in Tens

Here's the problem.

It takes Caleb 23.5 minutes to wax his new snowboard. If he waxes it once a week, how much time will he have spent waxing it after 10 weeks?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

Rebecca skied for 2.6 minutes, then quit. Her friend Safara skied 100 times as long as Rebecca. How many minutes did Safara spend skiing?

Division Equations

Here's the problem.

While playing 18 holes of golf, Esther and Sam walked 5.4 miles. If they walked an equal distance for each hole, how far did they walk per hole?

Read and understand the problem.

What do you know?

What are you trying to find?

Are there any clue words in the problem?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

What other plan could you use to solve this problem?

Division Equations

Here's the problem.

Abel's parents bought him 7 junior-sized golf clubs for \$59.50. If each club cost the same amount, how much did his parents pay for each club?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

When Cody played golf, he spent 74 minutes searching for 4 lost golf balls. On average, how long did he spend searching for each lost ball?

Estimate

Here's the problem.

Madi is on the lacrosse team. She is buying a uniform for \$64.50, a practice stick for \$30.25, and new cleats for \$86.95. About how much money does she need all together?

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

Do you need an exact answer?

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Is the math correct?

Find the exact answer. Is your estimate close to the exact answer?

Estimate

Here's the problem.

During the lacrosse season, the three highest average scorers on the team were Chris at 3.3 points, Graham at 2.9 points, and Owen at 2.7 points. For each game, about how many points did the three boys score together?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

A class-A lacrosse field is 91.44 meters long. A class-C lacrosse field is 45.72 meters long. About how many meters longer is the class-A than the class-C lacrosse field?

Decimal Statistics

Here's the problem.

Batting averages are three-digit decimals found by dividing the number of times a player got a hit by the number of times the player was at bat. Ted got up to bat 10 times. If he had 7 hits, what was his batting average?

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

Is the math correct?

Decimal Statistics

Here's the problem.

Completion statistics are decimals found by dividing the number of passes caught by a receiver by the number of passes made. If a quarterback makes 8 passes, and 7 are caught by a receiver, what is his completion statistic?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

To find his average pitching speed, Ace clocked three pitches at 71.3 mph, 66.2 mph, and 73.4 mph. What is his average pitching speed?

© Enslow Publishers, Inc. Sheets are reproducible for educational use only.

More Than One Question

Here's the problem.

An ice sledge hockey team is getting ready for the Paralympics. They have won 63 of their 100 games. What percent of the games have they won? What percent have they not won?

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

Is the math correct?

More Than One Question

Here's the problem.

In a wheelchair basketball game, a total of 100 points was scored by the two teams. Brenda's team scored 55 of those points. What percent of the points did Brenda's team score? What percent of the total points did the other team score?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

Eli bought a mouth guard for \$1.65 and new cleats for \$57.89. He started with \$80.00. How much money did he spend? How much money did he have left?

Decimals as Percents

Here's the problem.

In football, a completion statistic is a decimal or percent that tells how many passes are caught by a receiver.

A quarterback has a completion statistic of 0.384.

What percent of his passes were completed?

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

Is the math correct?

Decimals as Percents

Here's the problem.

A football team has a rushing statistic of 0.546. What is their rushing percentage?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

A football team has an offensive red-zone statistic of 0.805. What is their offensive red-zone percentage?

© Enslow Publishers, Inc. Sheets are reproducible for educational use only.

Percents as Decimals

Here's the problem.

In tae kwon do, when a competitor has a 7-point lead in a sparring match, he wins immediately and the match ends. Jackson has won 57% of his matches this way. Write 57% as a decimal.

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

Is the math correct?

Percents as Decimals

Here's the problem.

Elizabeth has won 92% of her tae kwon do matches.

Write 92% as a decimal.

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

A local tae kwon do center sent students to a national competition. Of the students they sent, 20% placed in the top three of their division. Write 20% as a decimal.

Percents and Division

Here's the problem.

There are 40 students in Macy's gymnastics class. Six of the students are working on the uneven bars. What percent of the students are working on the uneven bars?

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

Is the math correct?

What other plan could you use to solve this problem?

Percents and Division

Here's the problem.

Twenty students in Kennedy's gymnastic class traveled in a van and car to their competition. Sixteen of the students rode in the van. What percent of the students rode in the van?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

Twelve students out of the twenty that competed stayed overnight in a hotel for a two-day gymnastics competition. What percent of the students stayed at the hotel?

The Percent Equation

Here's the problem.

Ralph has won 50% of his wrestling matches. He has competed in 18 matches. How many has he won? Use the percent equation to solve this problem.

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

What plan does the problem ask you to use?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

Why or why not?

Could you have solved this problem a different way?

The Percent Equation

Here's the problem.

Gabriel chose wrestling headgear that was marked at 30% off. The regular price was \$29. How much was his discount?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

Gabriel paid 70% of the regular price for his wrestling headgear. The regular price was \$29. How much did Gabriel pay?

Break It Apart

Here's the problem.

A shop that rents surfboards will take 30% off the rental price of \$20.00 per board per hour if a group rents together. What is the price of a board per hour if you are in a group?

Read and understand the problem.

What do you know?

What are you trying to find?

Make a plan.

How can you solve this problem?

Solve the problem.

Carry out your plan.

Look back.

Does your answer make sense?

Is the math correct?

Break It Apart

Here's the problem.

In a sale on wet suits, if you buy one at regular price, the second is 40% off. If the regular price of a wet suit is \$80.00, how much will it cost to buy two wet suits?

Read and understand the problem.

Make a plan.

Solve the problem.

Look back.

Want to try another one?

Courtney and her friends were at the beach for 120 minutes. They shared a surfboard. Courtney used it 25% of the time. How many minutes did Courtney do something other than surf?

Answers

Problem-Solving Steps

Page 2: 14 cubic feet of breathing gas was used on the dive.

Page 3: The first diver reached the boat 1.23 minutes faster than the second.

Want to try another one? 4.4 more pounds of sponges were collected on the second dive than on the first.

Clue Words

Page 4: Clue word: together; operation: addition

Clue word: each; operation: multiplication

Want to do more? Wendell ran 5.7 miles in all.

Wendell ran 6.6 miles in all.

Page 5: Clue word: each; operation: division

Clue words: how much farther; operation: subtraction

Want to do more? Wendell ran 5.2 miles each time.

Wendell ran 1.3 miles farther in the afternoon.

Page 6: Clue word: each or per; operation: multiplication

Clue word: average; operation: division

Want to do more? Kate drank 7 pints of water.

Kate drank an average of 3.5 pints of water at each game.

Page 7: Clue word: combined; operation: addition

Clue word: how much more; operation: subtraction

Want to do more? Kate drank 6.3 pints of water at the two games.

Kate drank 1.7 more pints of water at the morning game.

Draw a Picture

Page 8: The first rock, at 0.4 meters from the target, would score a point.

Page 9: The temperature needs to be lowered by 4.5° Fahrenheit.

Want to try another one? They need to save 82 quarters.

Use a Model

Page 10: To the nearest meter, the course is 1,341 meters long.

Page 11: To the nearest pound, the weight is 9 pounds.

Want to try another one? The luger raced 8.4 kilometers in all.

Equations

Page 12: $\$35.20 + \$80.75 = \$115.95$. The ropes cost \$115.95 together.

Page 13: They hiked 1.59 kilometers more the second day.

Want to try another one? Kira spent 13.5 hours driving.

Use a Table

Page 14: The difference is 3.5 centimeters.

Page 15: Gage's shoes are 60.96 centimeters long when placed heel to toe.

Want to try another one? The difference is 3.33 centimeters.

Find the Hidden Information

Page 16: Kaitlin runs 45.5 kilometers in a week.

(Hidden information: A week is 7 days.)

Page 17: He will be running 14.5 miles each day after a year.

(Hidden information: A year is 12 months.)

Want to try another one? Jaden bought 36 socks.

(Hidden information: A dozen is 12.)

Patterns in Tens

Page 18: It will take Jay 152 minutes to ride the slope 10 times.

Page 19: Caleb will have spent 235 minutes waxing his snowboard.

Want to try another one? Safara skied for 260 minutes.

Division Equations

Page 20: They walked 0.3 miles per hole. (Clue words: “equal” and “per”)

Page 21: They paid \$8.50 for each club.

Want to try another one? On average, Cody spent 18.5 minutes searching for each lost ball.

Estimate

Page 22: Madi needs about \$182.00. (The exact answer is \$181.70.)

Page 23: Together the boys scored about 9 points per game.

Want to try another one? A class-A field is about 45 meters longer than a class-C field.

Decimal Statistics

Page 24: Ted’s batting average is 0.700.

Page 25: His completion statistic is 0.875.

Want to try another one? His average pitching speed is 70.3 mph.

More Than One Question

Page 26: They have won 63% of the games.

They have not won 37% of the games.

Page 27: Brenda’s team scored 55% of the points.

The other team scored 45% of the points.

Want to try another one? Eli spent \$59.54.

Eli had \$20.46 left.

Decimals as Percents

Page 28: 38.4% of his passes were completed.

Page 29: Their rushing percentage is 54.6%

Want to try another one? Their offensive red-zone percentage is 80.5%.

Percents as Decimals

Page 30: 0.57

Page 31: 0.92

Want to try another one? 0.2

Percents and Division

Page 32: 15% of the students are working on the uneven bars.

Page 33: 80% of the students rode in the van.

Want to try another one? 60% of the students stayed at the hotel.

The Percent Equation

Page 34: Ralph has won 9 of his wrestling matches.

Page 35: His discount was \$8.70.

Want to try another one? He paid \$20.30.

Break It Apart

Page 36: If you are in a group, the board rental is \$14.00 per hour.

Page 37: Two wet suits will cost \$128.00.

Want to try another one? Courtney spent 90 minutes doing something other than surfing.