

3RD GRADE

POWER



Problems & Homework Edition

Name: _____

POWER PROBLEMS HOMEWORK

Answer each question below.

1.) In a toy factory, each box that is shipped out has 30 toy race cars in it. The factory has an order for 300 race cars, but they only ship out 8 boxes today. How many more boxes will they need to ship to complete the order?

2.) Every Friday, students in Duncan's class draw a picture. There were 9 weeks in this month and there are 30 students in Duncan's class. There are 200 pictures missing, since some students were absent. What is the total number of pictures drawn by Ms. Duncan's class?

3.) A gardener buys flowers that come in ten-packs. She bought 4 packs of blue pansies, 3 white lilies, and 1 black-eyed Susan. She needs to spread out the planting over four days. How many plants should she plant each day?

4.) In a video game, you earn 10 points when you feed a kitten and lose 20 points if you forget to feed the kitten milk. The chart below shows the results of playing the game over four days. What is your total score?

Level	Times Kitten Fed	Times Forgot to Feed
One	xx	
Two	xxxx	
Three	xxx	

Name: _____

POWER PROBLEMS HOMEWORK 3.NBT.2

Answer each question below.

1.) A teacher has a budget of \$700 for classroom supplies each year. He spent \$34 on art supplies, \$278 on science lab materials, and \$298 on books. How much money does he have left?

2.) You are keeping track of how far you swim. On Monday, you swam 375 yards. On Tuesday, you swam 175 yards. On Wednesday, you swam 225 yards. What is your total swim distance?

3.) You have a new job, and your boss gave you \$1000 to spend on your office. You bought a desk for \$321. Then, your boss said that you could have an additional \$280 for your budget if you bought a printer. You spent \$139 on a desk chair and \$254 on a printer. How much money remains in your budget?

4.) A researcher is measuring how long toddlers will play with a new doll. The researcher writes down how many seconds the child plays with the doll before putting it down. At the end of the session, the amounts are added together to get the total time. How long did the child play with the doll in total?

403 seconds
220 seconds
67 seconds
34 seconds

Name: _____

POWER PROBLEMS HOMEWORK 3.NBT.1

Answer each question below.

1.) A scientist in a lab has been testing how far dogs can run in 30 seconds. Now, she needs to test how far dogs can run in 60 seconds. She has to run 100 feet and then add the distance to the 30 feet together. If her dog runs 23 feet, 31 feet, and 25 feet, what will the total distance be?

2.) A store has decided to change its prices so that all prices are rounded to the nearest dollar. They had been charging 231 cents for a package of gum and 67 cents for a lollipop. After they round their prices, how much will you pay for two lollipops and one package of gum?

3.) A video game is programmed with scores to the nearest ten. The scores are added together each day to get a total score. If your team's scores are 72, 96, and 55, what will the total score be?

4.) The amount of medicine to give a patient is determined by adding together their age, their height in inches, and their weight in pounds, and then rounding the sum to the nearest ten. Look at the data on this patient's chart and determine how much of the medicine they should get.

Harold B. Jones	
Age	62
Height	68 inches
Weight	195 pounds

Name: _____



POWER PROBLEMS
HOMEWORK 3.NBT.1

Answer each question below.

1.) A scientist in a lab has been measuring how far dogs can run in ten seconds. Now, she needs to round each distance to the nearest 10 feet and then add the numbers together. If her measurements are 23 feet, 31 feet, 28 feet, and 25 feet, what will be her answer?

2.) A store has decided to change its prices so that all prices are rounded to the nearest dollar. They had been charging 231 cents for a package of gum and 67 cents for a lollipop. After they round their prices, how much will you pay for two lollipops and one package of gum?

3.) A video game is programmed to round scores to the nearest ten and then add together each team member's score to get a total score. If your team's scores were 69, 72, 90, and 55, what will your team's total score be?

4.) The amount of medicine to give a patient is determined by adding together their age, their height in inches, and their weight in pounds, and then rounding the sum to the nearest ten. Look at the data on this patient's chart and determine how much of the medicine they should get.

Harold B. Jones	
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Height	68 inches
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POWER Problems HD

What is included?

- 12 conceptual based math questions
- Quality prompts and word problems that promote rigorous thinking
- 4 questions per standard
- Each standard is formatted to one page
- Easy prep
- Answer keys

WHAT ARE POWER PROBLEMS?



PURPOSEFUL - These problems are meant to keep students focused, while strengthening initiative and perseverance.



OPPORTUNITIES - These prompts can be used in a variety of ways. P.O.W.E.R problems can be used to introduce a lesson, spiral review, or as formative assessments.

WITH



ENGAGEMENT - Power Problems are real word applicable and designed to hook students with interest and presentation. The complexity of problems promotes problem solving skills.



RIGOR - Tasks are specifically designed to challenge students and assess conceptual understanding of curriculum versus procedural understanding. Students will need to apply more than just a "formula."

WHY USE POWER PROBLEMS?

BUILD STAMINA WITHIN
YOUR STUDENTS



MORE THAN JUST A COOKIE CUTTER TEXTBOOK APPROACH

- P.O.W.E.R problems are designed to challenge your students with their open ended presentation. Majority of problems that come from textbooks and workbooks assess procedural understanding of curriculum. Some textbooks even provide step by step instructions where the textbook is thinking for the students and taking away that "productive struggle" for children. When we rob students of that event, we rob them of their ability to reason, problem solve, and see beyond a standard algorithm. P.O.W.E.R problems are meant to show students that there are different ways to answer one question in math. With these tasks students take ownership and are part of the problem solving process versus filling in blanks in a textbook.

HOW TO USE POWER PROBLEMS

YOUR KIDS. YOUR
CHOICE. FLEXIBILITY.



TO INTRODUCE A LESSON - P.O.W.E.R problems can be used to introduce a new skill. In this case your students will experience a "productive struggle." Their problem solving skills and prior knowledge will kick in. Often times most of my students will have the incorrect answer or no answer at all. I then have someone explain their method/reasoning and allow my students to critique their peer's answer. This makes for great accountable talk discussions. If I see that most students do not have an answer I will assist the class in getting to a specific point and then allow them to finish independently.



SPIRAL REVIEW - Avoid your students forgetting standards by using P.O.W.E.R problems to spiral review previously taught lessons.



FORMATIVE ASSESSMENTS - You can use these problems to assess mastery and levels of understanding.