

4TH GRADE

POWER



Problems & HD

homework edition

Name: _____

POWER PROBLEMS HOMEWORK 4NBT.5

Answer each question below.

| | |
|---|---|
| 1.) What is the value of the digit 5 in the number 4,539? | 2.) A factory has 3,000 stuffed animals to ship out. If each holds 10 stuffed animals, how many boxes will be needed to ship this problem without using division. |
| 3.) Jorge collects dimes. If his collection is worth \$14.30, how many dimes will he have left if he gives 5 to his younger sister? | 4.) Students are placed into groups of 10 for field day games. Each group will have 2 parent volunteers. If 24 parent volunteers are needed, what is the greatest number of students that can attend field day? |

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POWER PROBLEMS HOMEWORK 4NBT.5

Answer each question below.

| | |
|--|--|
| 1.) Angie sews handmade dolls and sells them online. She sells a small doll for \$5 and a larger doll for \$9. She has sold 1,290 of the small dolls and 2,034 of the large dolls. How much money has she made selling dolls? | 2.) A publisher places 24 magazines in each box that they ship. If they ship out 68 boxes this week and 64 boxes next week, what is the total number of magazines that they will have shipped out? |
| 3.) Each student in an elementary school class is asked to bring in a package of construction paper that contains 96 sheets. There are 28 students in a class, but 4 forget to bring in the construction paper. How many total sheets of paper are available to use? | 4.) A singer wants to give each person who attends a concert a bumper sticker. The singer will perform 28 concerts on this tour. Half of the concert halls have seating for 800 people; the rest have seating for 1000 people. What is the total number of stickers that will be needed if all of the concerts are sold out? |

Name: _____

POWER PROBLEMS HOMEWORK 4NBT.6

Answer each question below.

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|---|--|
| 1.) A teacher has 360 ounces of clay and 8 students. How many ounces of clay can each student have? | 2.) Maribel is making treat bags for her birthday party. She wants to place 7 pieces of candy in each one. She has 122 lollipops and 85 hard candies. How many treat bags can she assemble? |
| 3.) A swim team is participating in a race in another city. There are 42 swimmers, 3 coaches, and 63 family members who plan to attend. If 8 vans will ride in each van, how many vans will the swim team need? | 4.) Jerome's favorite video game has 7 levels. He wants to divide his health points evenly so that he has enough for each level. If he has 238 health points, how many health points can he use on each level? |

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POWER Problems HD

What is included?

- 24 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.