


POWER PROBLEMS

4TH GRADE

Homework Edition


Name: _____

 POWER PROBLEMS HOMEWORK

Answer each question below.

1.) Mrs. Hernandez is determining how many vans will be needed for a field trip. Each van can transport 9 passengers. There are 150 students going on the trip. There is also one adult chaperone for every 7 students. How many vans will be needed?	2.) On a road trip, a family drove 846 miles the first day, 240 miles the second day, and 429 miles the third day. A week later, they drove home. How many miles did they drive in all?
3.) A farmer needs to buy 12 pounds of seeds for each acre she plants. If she plants 200 acres, what is a reasonable estimate for the number of pounds of seeds that she will need?	4.) A class is collecting canned food to donate. The first 5 students each bring in a 6-ounce can of food, and 5 students in a 10-pack of canned food. The goal is to collect 150 cans of food. How much more do they need to collect to reach their goal?


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 POWER PROBLEMS HOMEWORK 4.OA.2

Answer each question below.

1.) Truman has a large dog and a small dog. The large dog eats four times as much as the small dog. The small dog eats 5 pounds of food per week. Use the tape diagram to determine how much dog food Truman needs to buy each week.	2.) A 500-piece jigsaw puzzle costs \$7, and a 1000-piece jigsaw puzzle costs \$11. If Jaxon wants to buy 2 of the 500-piece puzzles and 3 of the 1000-piece puzzles, how much will he spend?
3.) A baby needs 40mg of vitamin C each day. If an adult needs double the amount that a baby needs plus another 10 mg, how much vitamin C does an adult need each day?	4.) A plane ticket costs 5 times as much if you purchase it the day before your trip. If a ticket from Los Angeles to New York normally costs \$325 dollars, how much will it cost if you buy it the day before and pay an extra \$65 to check a suitcase?

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 POWER PROBLEMS HOMEWORK 4.OA.1

Answer each question below.

1.) Mei has 12 trading cards. Maurice has five times as many trading cards as Mei. How many trading cards does Maurice have now?	2.) Vishal is 8 years old. If you multiply his age by 4 and then add 3 to it, you will get his mother's age. How old is Vishal's mother?
3.) A girl created this picture to show how many shells are in her collection. Write and solve the problem that shows how many shells she has if she gives 5 shells to her sister.	4.) Terrance wants to invite four friends to his birthday party. He'd like to give himself and each friend 6 water balloons. He also wants 5 extra water balloons in case some break. How many water balloons should he prepare so that there are enough for himself and his friends?

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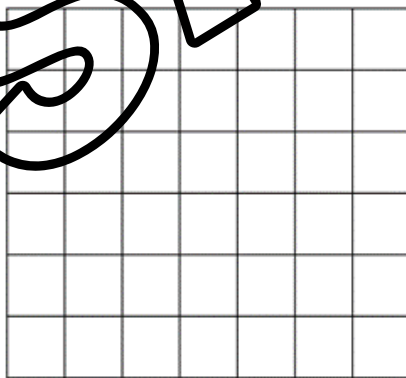
POWER PROBLEMS
HOMEWORK 4.0A.1

Answer each question below.

1.) Mei had 12 trading cards. Maurice has five times as many cards as Mei, but then Maurice gave Mei 6 cards. How many cards does Maurice have now?

2.) Vishal is 8 years old. If you multiply his age by 4 and then add 3 to it, you will get his mother's age. How old is Vishal's mother?

3.) Yolanda created this picture to show how many shells are in her collection. Write and solve the multiplication problem that shows how many shells she has if she gives four shells to her sister.



4.) Terrance wants to invite four friends to his birthday party. He'd like to give himself and each friend 6 water balloons. He also wants 5 extra water balloons in case some break. How many water balloons should he prepare so that there are enough for himself and his friends?

POWER Problems HD

What is included?

- 20 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.