5TH GRADE POWER Problems HD

Homework Edition

Name: _____ POWER PR HOMEWOR

Answer each question below.

1.) Nathan has an aquarium. Does he need to find the perimeter, area, surface area, or volume of the aquarium in order to determine how much water will be needed to fill the aquarium?

2.) Jaxon answered a ma problem that asked him t volume of a box with this 24 square feet. What is wr Jaxon's answer?

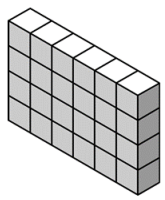
3.) Abbi is trying to determine the volume of a small container that is a rectangular prism. She has foam cubes that are 1 cubic centimeter. She found that she can fit 15 cubes in the container. What is the volume of the container?

4.) A hole is dug on a con site that is 10 feet by 8 fee feet deep. If you were to the volume of the hole, w would you use?

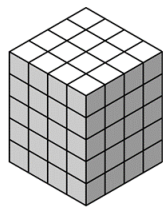
Name: _____ POWER PROBLEMS HOMEWORK 5.MD.4

Answer each question below.

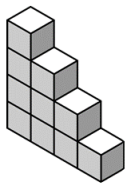
1.) Mei thinks that the area and the volume of this figure are identical; Kayla says that that is not possible. Who is correct and why?



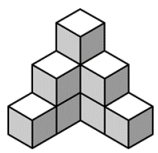
2.) What is the volume of this figure if each cube is one cubic centimeter?



3.) What is the volume of this figure if each cube is one cubic centimeter?



4.) What is the volume of this figure if each cube is one cubic centimeter?



e: _____ POWER PROBLEMS HOMEWORK 5.MD.1

r each question below.

pent half of his money eadphones. Then, he nch for $11.73 and new s for $9.20. Finally, he me candy for 93 cents, ought his mother a gift for $18.14. How much d he have before he opping?

2.) George says that if you measure the same object in both centimeters and millimeters, the number of millimeters will always be larger than the number of centimeters. Is George right?

hinks that you can etween kilograms, d centigrams using of ten no matter what u are measuring. Is Tessa

4.) Yolanda wants to write a computer program. The program will ask the user to enter a length in feet, and the program will tell the user how long the length would be in inches. What operation does the program need to do to the length in feet in order to determine the length in inches?

Measurement and Data Standards

TANYA YERO Teaching

Name: _____

POWER PROBLEMS
HOMEWORK 5.MD.3

Answer each question below.

1.) Nathan has an aquarium. Does he need to find the perimeter, area, surface area, or volume of the aquarium in order to determine how much water will be needed to fill the aquarium?

2.) Jaxon answered a math problem that asked him to find the volume of a box with this answer: 24 square feet. What is wrong with Jaxon's answer?

3.) Abbi is trying to determine the volume of a small container that is a rectangular prism. She has foam cubes that are 1 cubic centimeter. She found that she can fit 15 cubes in the container. What is the volume of the container?

4.) A hole is dug on a construction site that is 10 feet by 8 feet. It is two feet deep. If you were to measure the volume of the hole, what units would you use?

POWERProblems 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.