

3RD GRADE

POWER



Problems & Homework Edition

Name: _____

POWER PROBLEMS HOMEWORK

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 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 times are added together to get a total. How long did the child play with the doll in total?

403 seconds
220 seconds
67 seconds
34 seconds

Name: _____

POWER PROBLEMS HOMEWORK 3MD.3

Answer each question below.

1.) Fill in the graph to show that Lenore has raised \$15, Julio raised \$40, Sally raised \$25, and Lee raised \$30.

Amount of Money Raised	
Lenore	
Julio	
Sally	
Lee	

\$ = five dollars raised

2.) Fill in the bar graph to show that Wednesday's sales were \$125, Thursday's sales were \$150, Friday's sales were \$200, and Saturday's were \$70.

Bake Sale Results

3.) A teacher wants to divide his students into two teams. If he does it by favorite color, which colors should be grouped together so that the groups are of equal size?

Favorite Color

4.) The librarian has learned that check outs can be doubled for a month if an author visits the library. If the librarian wants to increase check outs in the month with the fewest check outs, which month should the author be invited, and how many books will the librarian expect to be checked out that month?

Library Books Checked Out

Name: _____

POWER PROBLEMS HOMEWORK 3MD.8

Answer each question below.

1.) The garden is shaped like a pentagon. The long side of the garden will be 9 feet and the short side will be 5 feet. How many feet of fence will be needed?

2.) If the perimeter of this figure is 60, what is the length of the side with the X next to it?

3.) The length of the side with the X next to it is 5 inches long, and the perimeter is 25 inches. What is a reasonable estimate for the length of the other side of this shape?

4.) The length of each side of the triangle is 7 inches. What is the perimeter of the square? Explain.

Name: _____



Answer each question below.

1.) Draw three quadrilaterals that are not rectangles and that are different from each other.

2.) Fill in the blanks using these words: parallelogram, rectangle.

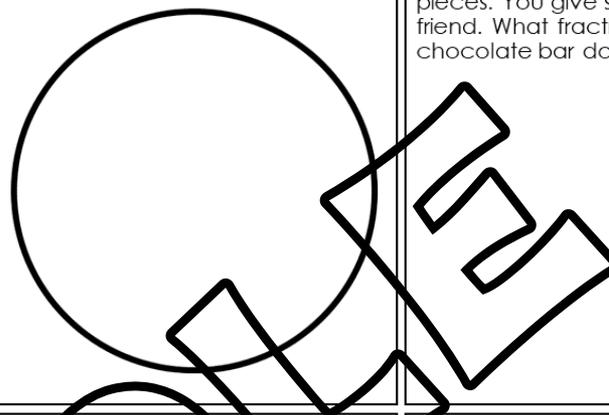
All _____ are _____, but not all _____ are _____.

Name: _____



Answer each question below.

1.) Divide the circle into eight equal pieces.



2.) You have two chocolate bars. You divide each bar into four pieces. You give six pieces to a friend. What fraction of one chocolate bar do you have left?

3.) Mystery shape: I have four

4.) Draw a quadrilateral that does

3.) Can you find three different

4.) Take out her birthday cake in

Name: _____



Answer each question below.

1.) Jerome plans on visiting 20 of his neighbors and asking them to donate to a food drive. Each day, he visits three neighbors. If he has done this for 5 days, how many more neighbors does he need to visit to reach his goal? Write an equation and solve it.

2.) You bought some new socks, and you paid with a twenty-dollar bill. The cashier gave you \$4 in change. If you bought four pairs of socks, how much did each pair cost? Write an equation and solve it.

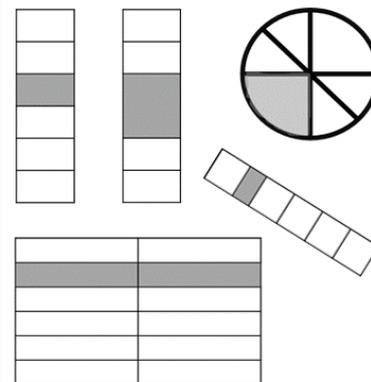
Name: _____



Answer each question below.

1.) You make a pizza. You cut it into four equal pieces. Then, you eat three of the pieces. Draw a picture that shows the remaining pizza and write a fraction that describes the pizza.

2.) Circle the pictures that show $\frac{1}{6}$.



3.) You are trying to figure out how much candy your booth at the school carnival had before the carnival began. You had 70 people come to the booth, and you gave each person 6 pieces of candy. Write an equation that uses division and solve it.

4.) You walked 531 meters from home to school, 491 meters from school to the park, and then 702 meters from the park back to your home. What is a good estimate for how far you walked today?

3.) You are comparing two fractions. Both have 1 as the numerator. The denominator of the second fraction is 2 more than the denominator of the first fraction. Which fraction is larger?

4.) Your dad orders two pizzas for dinner. One pizza is a medium and one is an extra-large. Each pizza is cut into ten pieces. Your dad says that you can have three slices. If you want to eat as much pizza as possible, which pizza should you take your slices from?

POWER Problems HD

What is included?

- 100 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.