







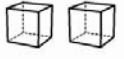
POWER PROBLEMS

Homework Edition

Name: _____

POWER PROBLEMS HOMEWORK

Match the shapes on the left with the composite shape they can form when put together on the right.

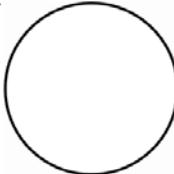
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Name: _____

POWER PROBLEMS HOMEWORK 1G.3

Answer the questions below.



- 1.) Draw a line to divide the circle into halves. Circle all of the choices below that describe the shape.



2 halves 1 whole


$\frac{1}{2}$ $\frac{2}{2}$

Jen Ben They ate the same amount
- 2.) Jen ate 1 piece of her pie on the left. Ben ate 2 pieces of his pie on the right. Who ate more pie?

Jen's pie Ben's pie

Jen Ben They ate the same amount
- 3.) Draw lines to divide the rectangle into fourths. Circle all of the choices below that describe the shape.

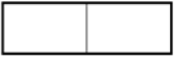


4 fourths 1 whole

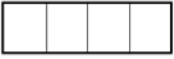
4 quarters 1 half

$\frac{4}{4}$ $\frac{1}{4}$ $\frac{2}{4}$ $\frac{3}{4}$

Matt Kat They ate the same amount
- 4.) Matt ate 1 piece of his brownie, shown on top. Kat ate 1 piece of her brownie, shown on the bottom. Who ate more brownie?



Matt's brownies



Kat's brownies

Matt Kat They ate the same amount

Name: _____

POWER PROBLEMS HOMEWORK 1G.1

Answer the questions below.

- 1.) Draw an enclosed shape with 4 straight sides and 4 corners. What shape am I? Explain.
- 2.) I am an enclosed shape with 4 straight sides and no square corners. What shape am I? Explain.
- 3.) Draw an enclosed shape with 3 straight sides and 3 corners. What shape am I? Explain.
- 4.) Explain what a defining attribute of a shape is. What are some examples of non-defining attributes?

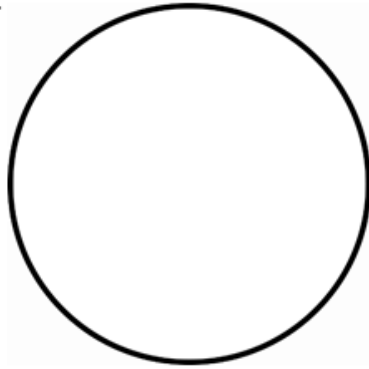
Name: _____



POWER PROBLEMS
HOMEWORK I.G.3

Answer the questions below.

1.) Draw a line to divide the circle into halves. Circle all of the choices below that describe the shape.



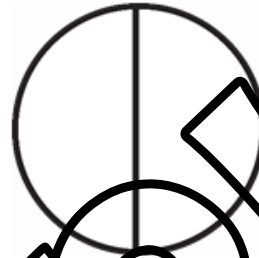
2 halves

1 whole

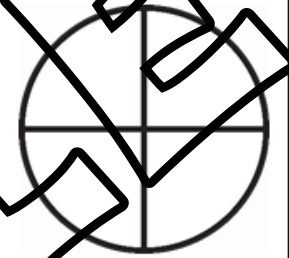
$$\frac{1}{2}$$

$$\frac{2}{2}$$

2.) Jen ate 1 piece of her pie on the left. Ben ate 2 pieces of his pie on the right. Who ate more pie?



Jen's pie



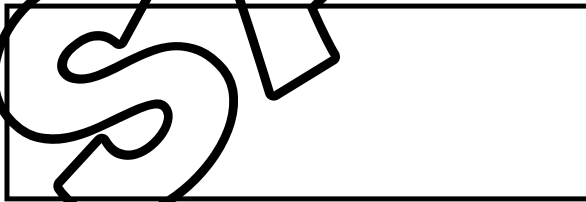
Ben's pie

Jen

Ben

They ate the same amount

3.) Draw lines to divide the rectangle into fourths. Circle all of the choices below that describe the shape.



4 fourths

1 whole

4 quarters

1 half

$$\frac{4}{4}$$

$$\frac{1}{4}$$

$$\frac{2}{4}$$

$$\frac{3}{4}$$

4.) Matt ate 1 piece of his brownie, shown on top. Kat ate 1 piece of her brownie, shown on the bottom. Who ate more brownie?



Matt's brownies



Kat's brownies

Matt

Kat

They ate the same amount

POWER Problems HD

What is included?

- Procedural and 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.