

Mathematical Mindsets

## Area and Perimeter

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### Standards

**4.MD.3** Apply the area and perimeter formulas for rectangles in real world and mathematical problems. Common Core State Standards

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### Objective

Students will be able to find the area and perimeter of a square or rectangular space and apply an equation to their thinking.

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### Materials

- Task Card
  - Vocabulary Cards
  - Paper
  - Scissors
  - Large Construction Paper
  - Groups of 4
  - Markers
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### Guided Introduction

1. Introduce students to the task we will be working on.
    1. Dara got an iTunes Gift Card and a Target Gift Card for her mom's birthday. The dimensions of each card were 4 inches by 2 inches. She wants to make a card to tape both of them onto. She wants a one inch border around each gift card, and both gift cards showing. What is the minimum perimeter and area that the homemade card must have?
  2. Break students into groups of 4
  3. Show students the resources they can use to answer the question and explain that they will be working to solve the problem as a group. All students must participate and help each other. When done, model and show your work, recording steps.
  4. Pass out materials
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### Independent Practice

1. Students work together to complete task.
  2. Create their poster to share with the class
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### Guided Discussion

1. Students will share their thinking on how they solved the problem
  2. I will record their answers on the board to work as a class to model with mathematics and build our equation.
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### Extension

1. Have students try to solve it in another way.
  2. Have students try to create a numerical representation on their own
  3. Have students try other problems to see if their thinking hold true.
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### Assessment

Students will complete a similar problem to show what they learned.

Alex's family bought a new TV to go in their family room. It measures 51 inches wide by 31 inches tall. The TV stand they got was 4 feet long. Would the TV fit on the stand? Explain how you know.

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### Accommodations & Modifications

Additional tools and scrap paper will be provided for students to access if needed.

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Mathematical Mindsets

## Dividing Fractions

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### Standards

**5.NF.7.c** Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. *Common Core State Standards*

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### Objective

Students will be able to divide whole numbers by fractions and create a numerical model to support their thinking.

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### Materials

- Task Card
  - String
  - Large Construction Paper
  - Markers
  - Groups of 4
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### Guided Introduction

1. Introduce students to the task we will be working on.
    1. Kiki is making bracelets for her friends. She had 9 feet of string, and she needs  $\frac{1}{3}$  a foot of string for every bracelet. How many bracelets can she make?
  2. Break students into groups of 4
  3. Show students the resources they can use to answer the question and explain that they will be working to solve the problem as a group. All students must participate and help each other. When done, model and show your work, recording steps.
  4. Pass out materials
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### Independent Practice

1. Students work together to complete task.
  2. Create their poster to share with the class
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### Guided Discussion

1. Students will share their thinking on how they solved the problem
  2. I will record their thinking in numbers on the board to work as a class to model with mathematics and build our equation.
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### Extension

1. Have students try to solve it in another way.
  2. Have students try to create a numerical representation on their own
  3. Have students try other problems to see if their thinking hold true.
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### Assessment

Students will complete a similar problem to show what they learned.

Latoya is a gardener. She had 4 tons of mulch, and she uses  $\frac{1}{6}$  of a ton for each garden. How many gardens can she plant?

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### Accommodations & Modifications

Additional tools and scrap paper will be provided for students to access if needed.