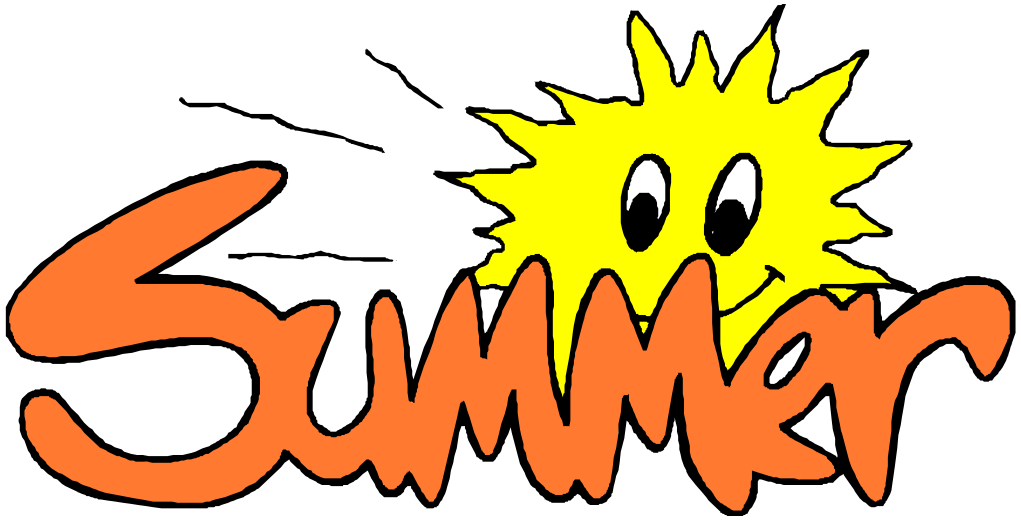


MATH PACKET

for

Students Entering the **Fifth Grade**

Students Name: _____

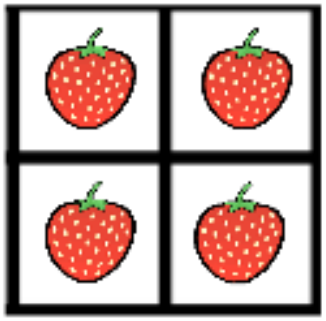
First and Last

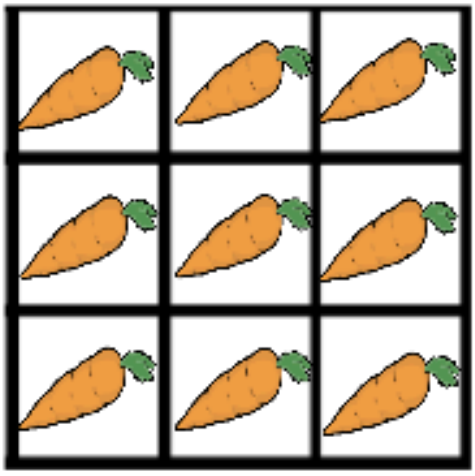
Parent's Signature: _____

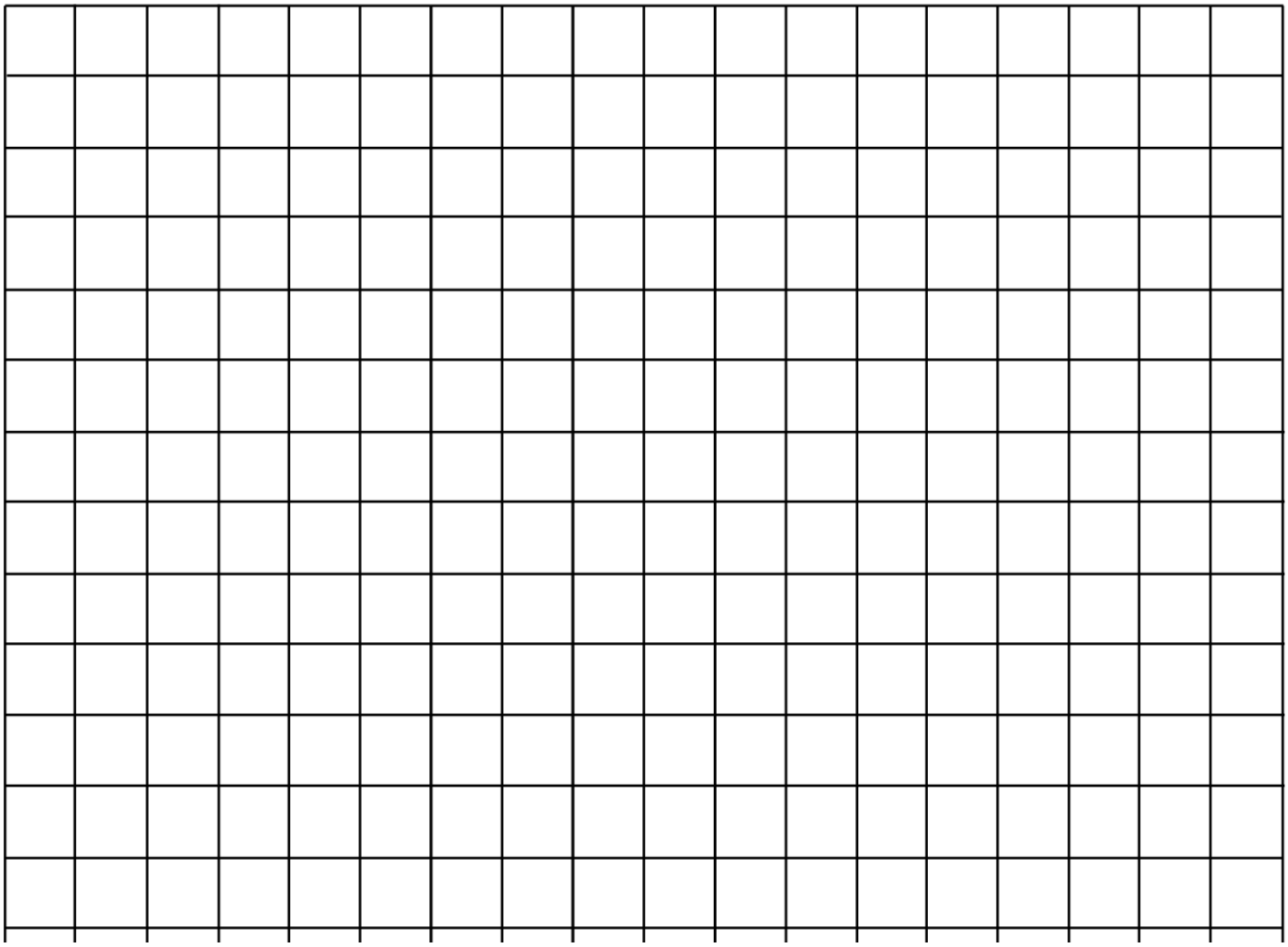
Operations and Algebraic Thinking

How Does His Garden Grow?

Farmer Joe loves patterns about as much as he loves gardening. Use the attached grid paper to create 3 more garden plots to continue the pattern Farmer Joe started. What do you notice about the pattern? What is the rule? Can you predict what the 10th garden plot will look like if you continue the pattern? Explain.







Operations and Algebraic Thinking

Purchasing Popsicles

Some local stores are selling popsicles for the summer. You LOVE popsicles and want to buy enough for the whole year! Answer the questions below using the chart.

Target	Sam's Club
3 popsicles per box	180 popsicles per box
2 popsicles per box	90 popsicles per box
4 popsicles per box	120 popsicles per box

Adapted from: Smith, Margaret Schwan, Victoria Bill, and Elizabeth K. Hughes. "Thinking Through a Lesson Protocol: Successfully Implementing High-Level Tasks." Mathematics Teaching in the Middle School 14 (October 2008): 132-138.

How many different ways can you buy 360 popsicles?

What patterns do you notice? Explain your answer.

Challenge:

If you need half as many popsicles, how many different ways can you buy that many popsicles?

Number Operations in Base Ten

Bottles on the Beach

You collected bottles and cans from the beach and brought them to the recycling center. Solve the problems below.

I. A recycling center recycles plastic bottles, aluminum cans, and glass bottles. The table shows the number of each material the center recycled in one day.

Materials Recycled

Material	Number Recycled
Plastic bottles	120,847
Aluminum Cans	90,659
Glass Bottles	30,273

A. Was the combination of aluminum cans and glass bottles that were recycled greater than or less than the number of plastic bottles that were recycled? Show your work.

B. What is the total number of bottles and cans recycled at the center? Show your work.

C. How many more aluminum cans were recycled than glass bottles? Show your work.

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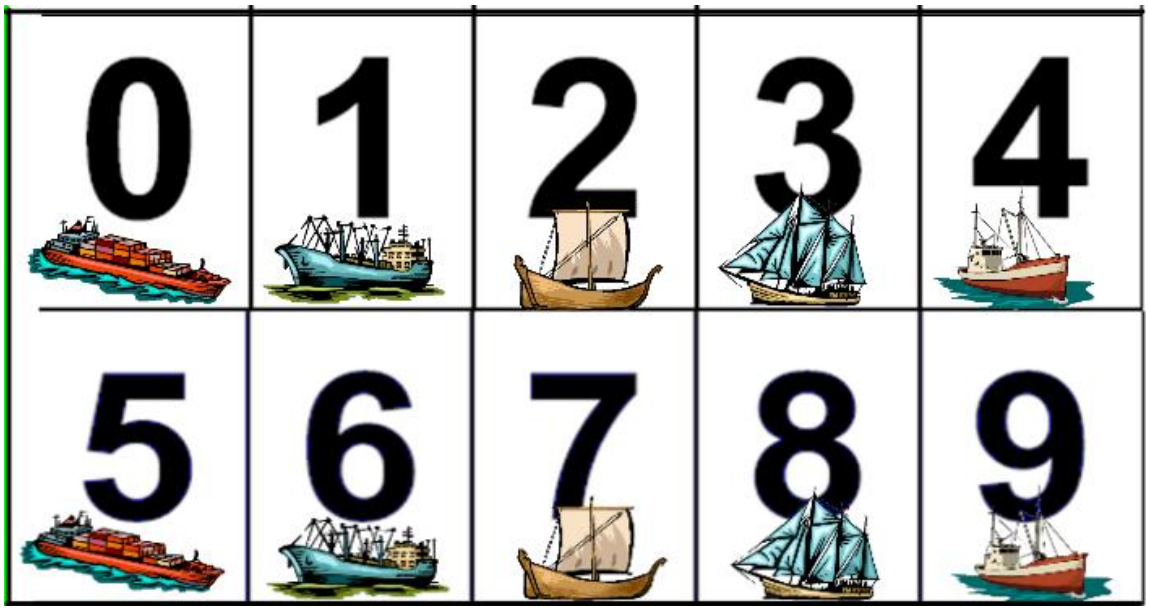
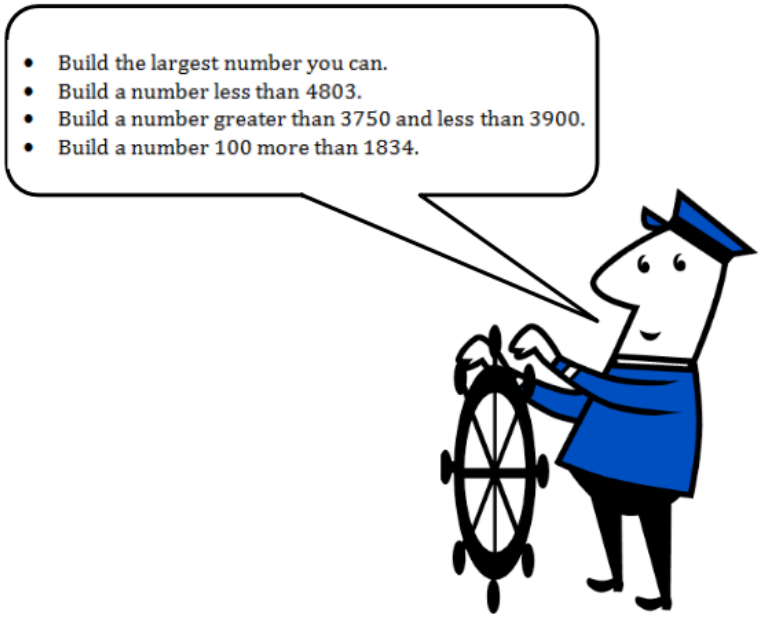
Number Operations in Base Ten

Nautical Numbers

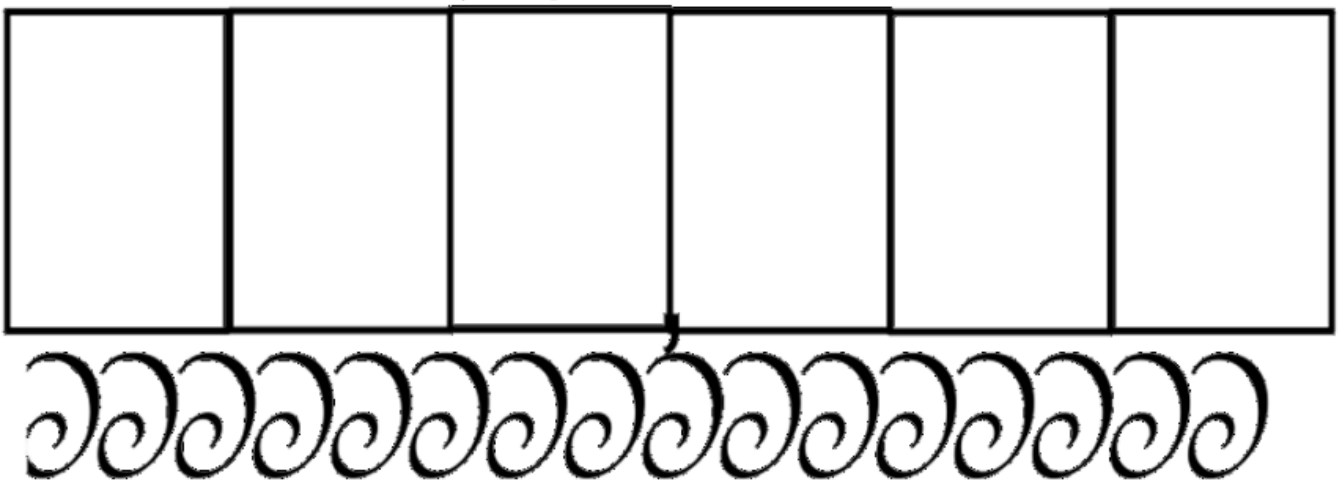


Have your child cut out the number cards above. Ask them to complete tasks like the ones below…



When your child has had sufficient practice, have your child generate a large number. Enter the number on the next page. The number of digits can be based on your child's ability. Write 4 clues for the number (My number is a 5 digit odd number between 70,000 and 60,000). Can a third person guess the secret number? Play the game twice.

Choose your digits. Place them on the waves



Game 1 Clues

1.

2.

3.

4.

Game 2 Clues

1.

2.

3.

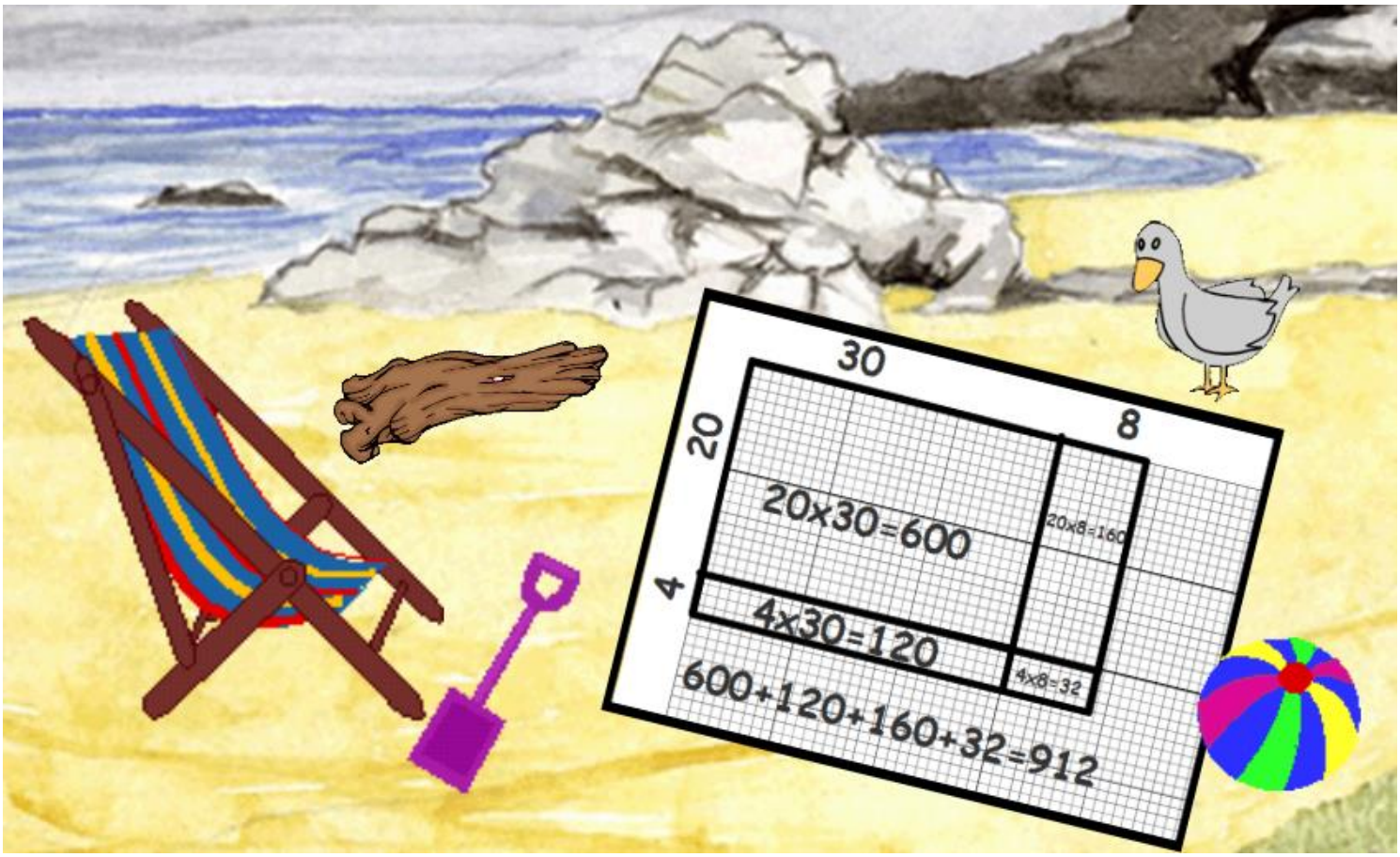
4.

Number Operations in Base Ten

Beach Towel Area Models

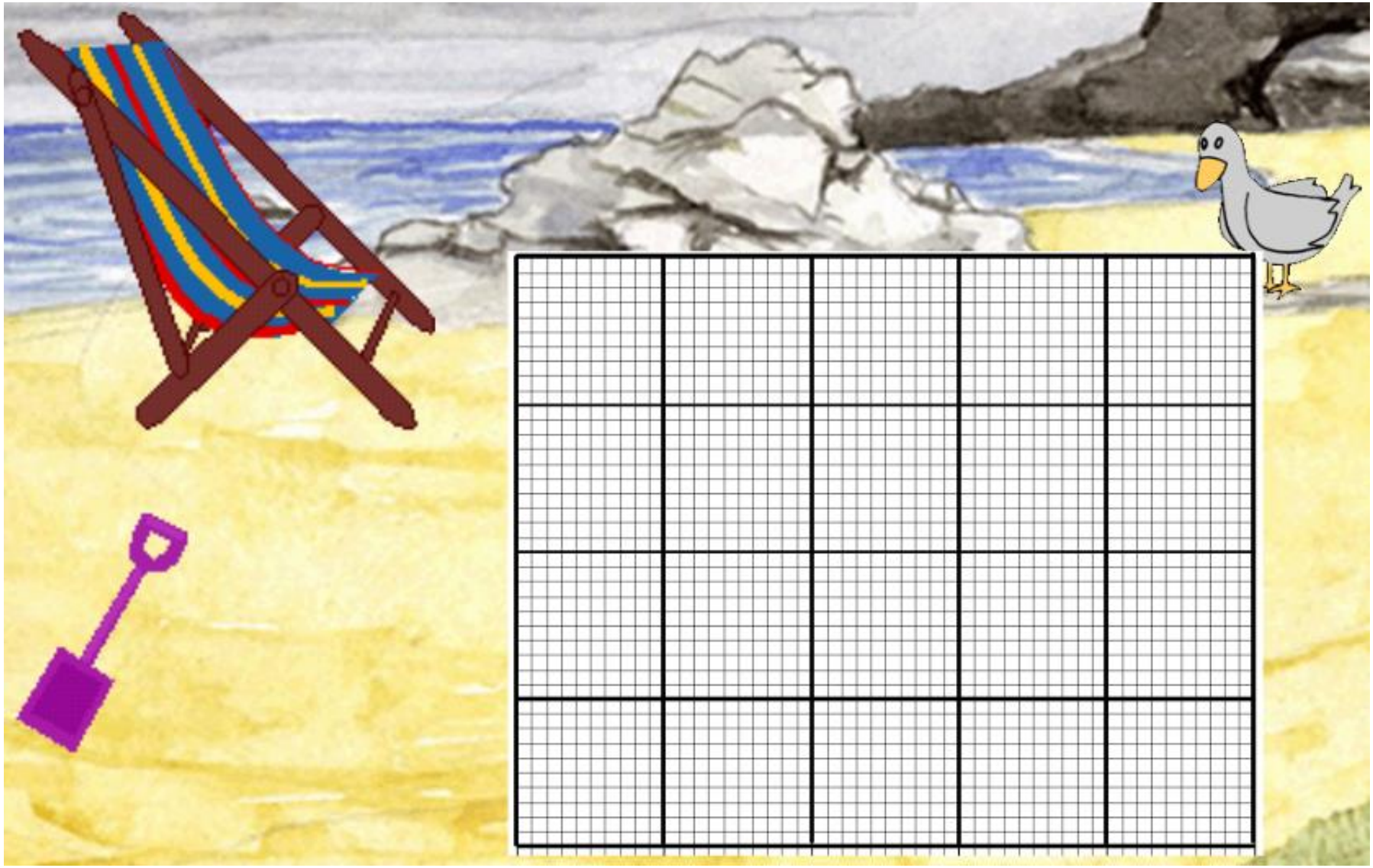
AHA is selling beach towels to help students remember their area models for multiplication. They have asked students to design a beach towel similar to the one below.

38 x 42



Use the following page to design a beach towel of an area model to represent 42 x 36. Be sure to include partial products and their equations.

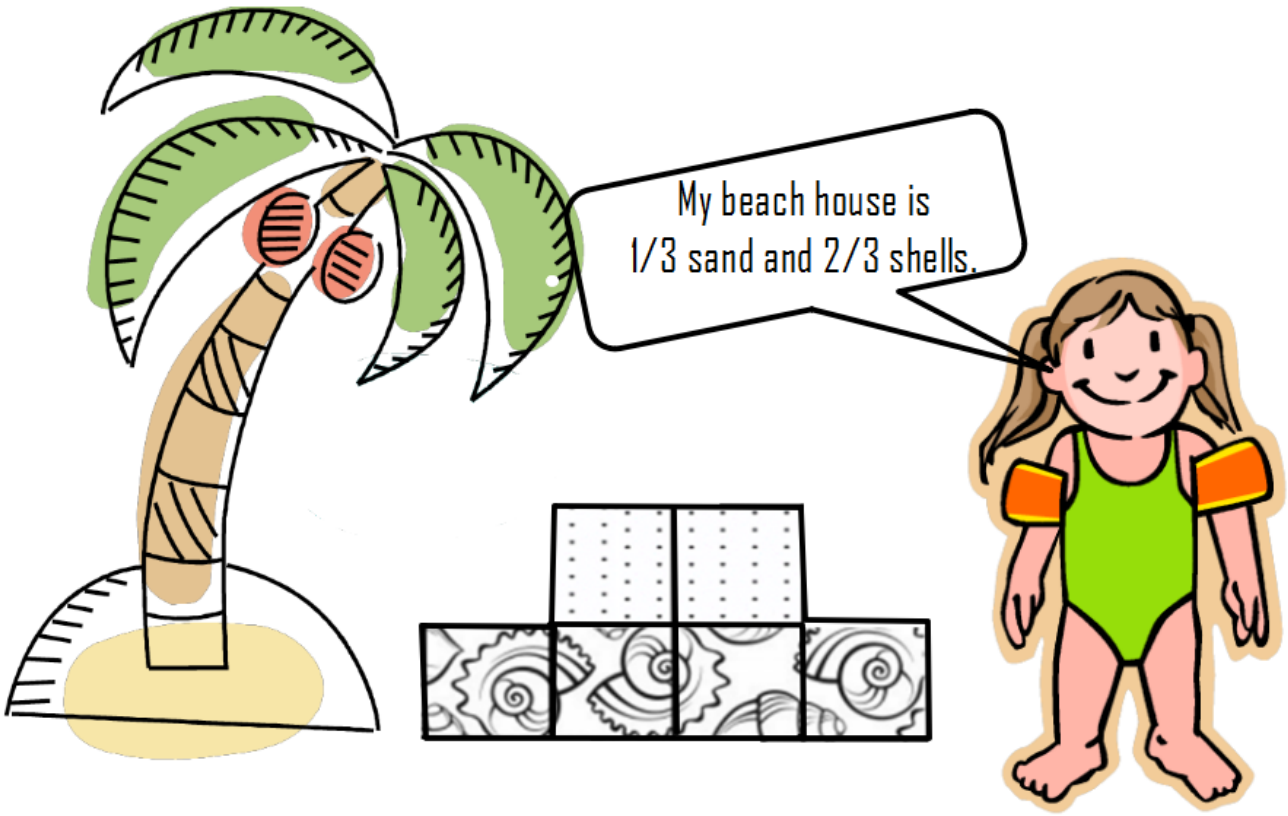
42 x 36



NUMBER & OPERATIONS/Fractions-

Build a Beach House

Cut out the 40 tiles on the next page. Use the tiles to construct a beach house given the criteria on each activity card.



(adapted from http://maccss.ncdpi.wikispaces.net/file/view/4thGradeUnit.pdf/295313404/4thGradeUnit.pdf)

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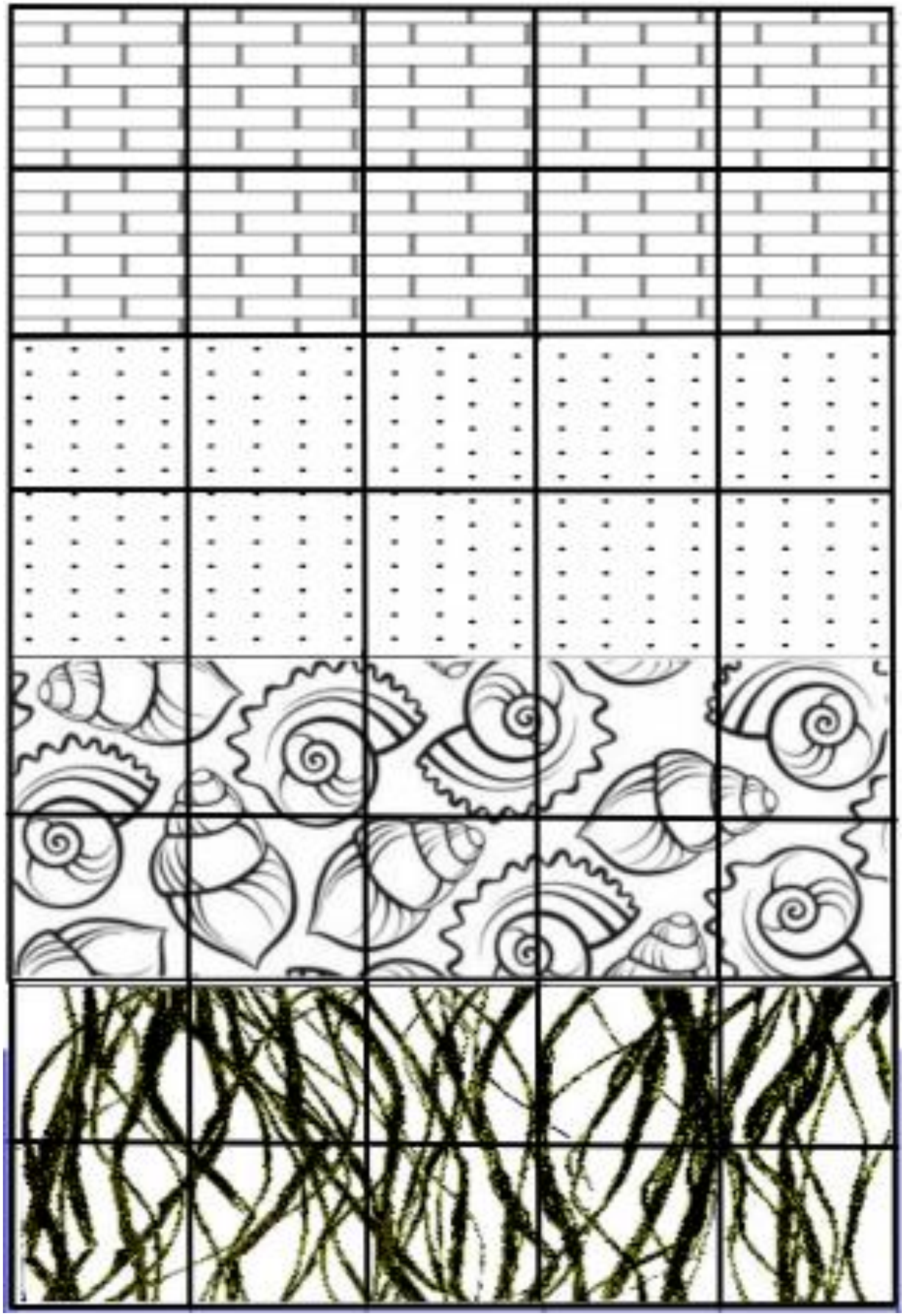

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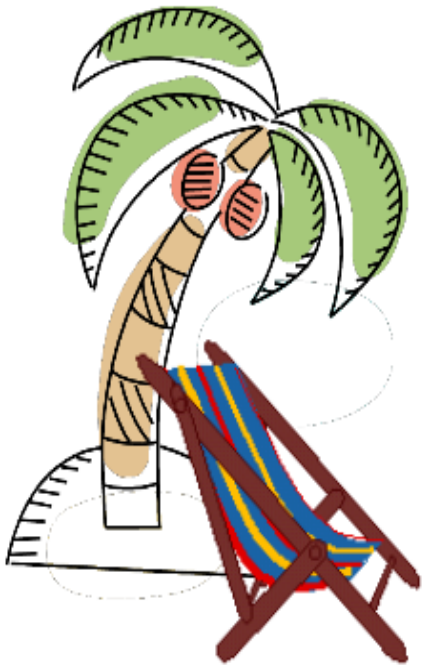
CARD A Build beach house that is… • One fourth brick • One fourth seaweed	CARD B Build beach house that is… • Two thirds sand
CARD C Build beach house that is… • One eighth sand • Four eighths seaweed	CARD D Build beach house that is… • One third shells • Two thirds brick
CARD E Build beach house that is… • One half brick • One fourth sand	CARD F Build beach house that is… • Five twelfths shells • One sixth brick • Two sixths seaweed
CARD G Build beach house that is… • One fifth brick • Four tenths seaweed • Two fifths shells	CARD H Build beach house that is… • One third sand • One sixth brick • One half seaweed

Build your beach house here.



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Geometry

Baseball Symmetry

Cut out the playing cards on the following pages. Turn the cards upside down and place in the center between the players. Each player takes a turn drawing a card from the pile. The player receives a score equal to the number if lines of symmetry for the shape drawn. There are three "strike" cards in the pile. When all three "strike" cards are drawn, the game is over. The player who has the highest total score at the end of the game wins.

Player 1	Player 2

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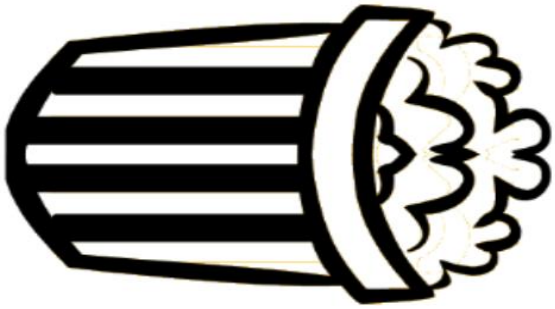

ADMIT ONE

Seat R

Section 15

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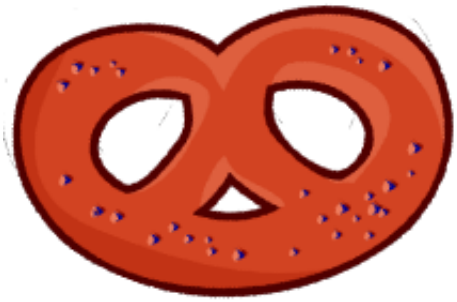
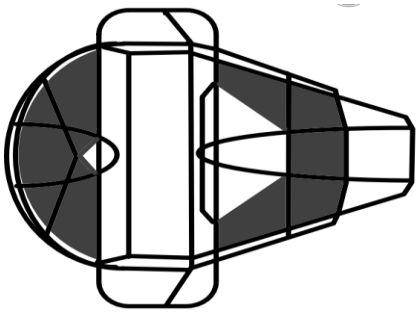
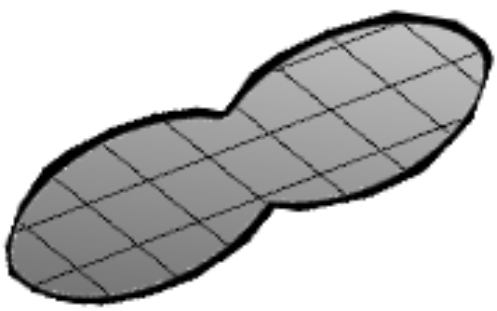
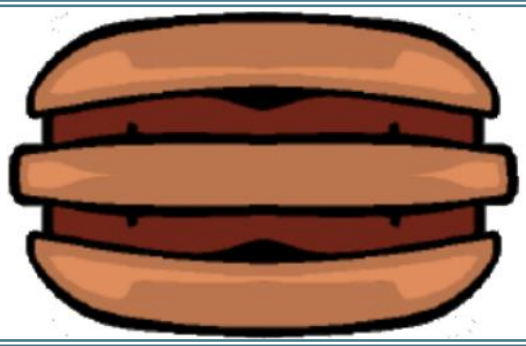




STRIKE

STRIKE

STRIKE