Dear Parents and Guardians,

Welcome to our **Summer Math Packet for Students Entering 5th Grade!** We have selected four sample problems from The Partnership for Assessment of Readiness for College and Careers (PARCC) site. We have also selected problems from two resources we use here at Bethesda Elementary that promote problem solving, flexible thinking, and fluency with numbers. Since these types of problems tend to be "thinking type" problems that students might have to try a few times before finding a successful strategy, we have included only a few. Our goal is to encourage students to persevere through problems that are not easily solved in order to engage them in thinking about the process and the problem in new ways. Students should be able to explain their thinking and justify their choice of strategies. The process your child uses is more important than the final answer. If a student is unable to solve the problem, he/she should record strategies attempted, in writing, on the assignment.

Links to online resources

Challenging Problems

http://nrich.maths.org

Fluency Multiplying and Dividing Basic Facts

(It is essential for students entering Grade 5 math to fluently multiply and divide within 100. Fluency does not simply imply recall of facts; fluency includes accuracy, efficiency, and flexibility.)

http://www.edu.dudley.gov.uk/numeracy/ITPs/New%20shockwave%20ITPs/num_itp_multi_board.swf

http://illuminations.nctm.org/activitydetail.aspx?id=155

http://www.bbc.co.uk/skillswise/game/ma13tabl-game-tables-grid-find

http://www.bbc.co.uk/skillswise/game/ma11divi-game-fridge-magnet-division

http://www.bbc.co.uk/schools/starship/maths/games/cross_the_swamp/big_sound/full.shtml

http://aaamath.com

To receive credit, please have your parent help you fill out the verification form below.

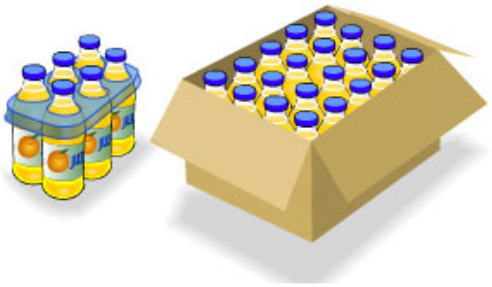
https://docs.google.com/forms/d/1jVQK7S0EDz8poxS3LwW3xyv5zikCLwIVXI5tsTa0LRw/viewform?usp=send_form

The form must be completed by the third Friday of September!

Ordering juice drinks (grade 4)

Julian makes and sells juice drinks. The juice drinks are sold in six-packs and boxes.

A six-pack has 6 juice drinks and costs $2.
A box has 20 juice drinks and costs $7.



The Friendly Corner Store placed this order:

24 juice drinks packaged in six-packs
200 juice drinks packaged in boxes

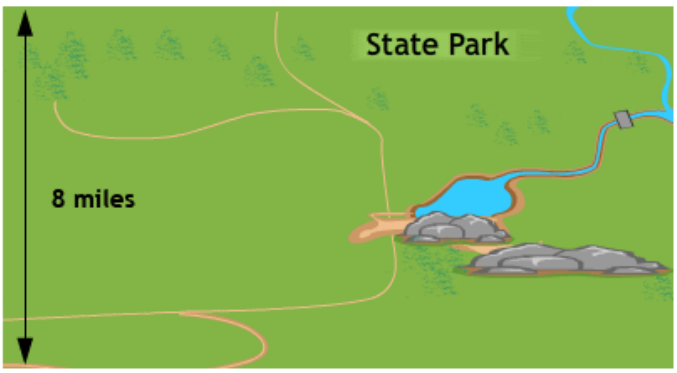
Fill in the blanks to complete the order receipt.

Order receipt		
	Number of packages	Total cost
Six-packs		$ .00
Boxes		$ .00
	Total	$ .00

Deer in the park (grade 4)

Write your answers to the following problem in your answer booklet.

The perimeter of the rectangular state park shown is 42 miles.



A ranger estimates that there are 9 deer in each square mile of the park.

If this estimate is correct, how many total deer are in the park? Explain your answer using numbers, symbols, and words.

Numbers of stadium seats (grade 4)

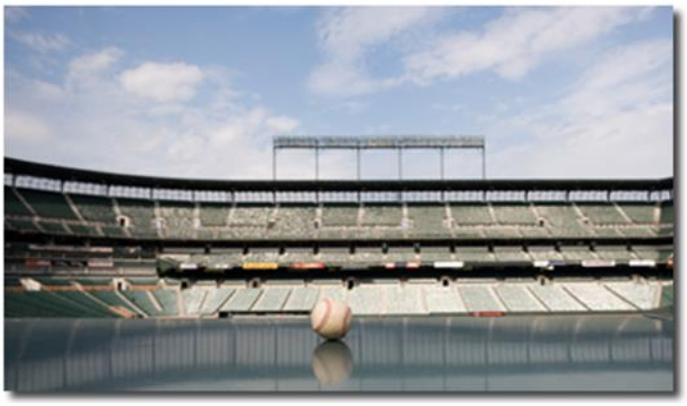
Baseball stadiums have different numbers of seats. Drag the tiles to arrange the stadiums from least to greatest number of seats.

San Francisco Giants' stadium: 41,915 seats	Washington Nationals' stadium: 41,888 seats	San Diego Padres' stadium: 42,445 seats

	<		<	

Numbers of stadium seats (grade 4)

Baseball stadiums have different numbers of seats. Drag the tiles to arrange the stadiums from least to greatest number of seats.



San Francisco Giants' stadium: 41,915 seats	Washington Nationals' stadium: 41,888 seats	San Diego Padres' stadium: 42,445 seats

	<		<	

Three classes at Lakeview School are going on a field trip. The table shows the number of people in each class, including the teacher.

They can choose to use buses, vans, and cars.

	Total number of people
Mrs. Ruiz's Class	23
Mr. Yang's Class	25
Mrs. Evans' Class	24

Buses, vans, and cars (grade 4)

Buses have 20 seats

Vans have 16 seats

Cars have 5 seats

Which three combinations can be used to take all three classes on the field trip?

- [ ] 1 bus and 4 vans
- [ ] 3 vans and 11 cars
- [ ] 1 bus and 1 van and 6 cars
- [ ] 1 bus and 8 cars
- [ ] 2 buses and 3 vans and 4 cars

NUMBER & OPERATIONS/Fractions

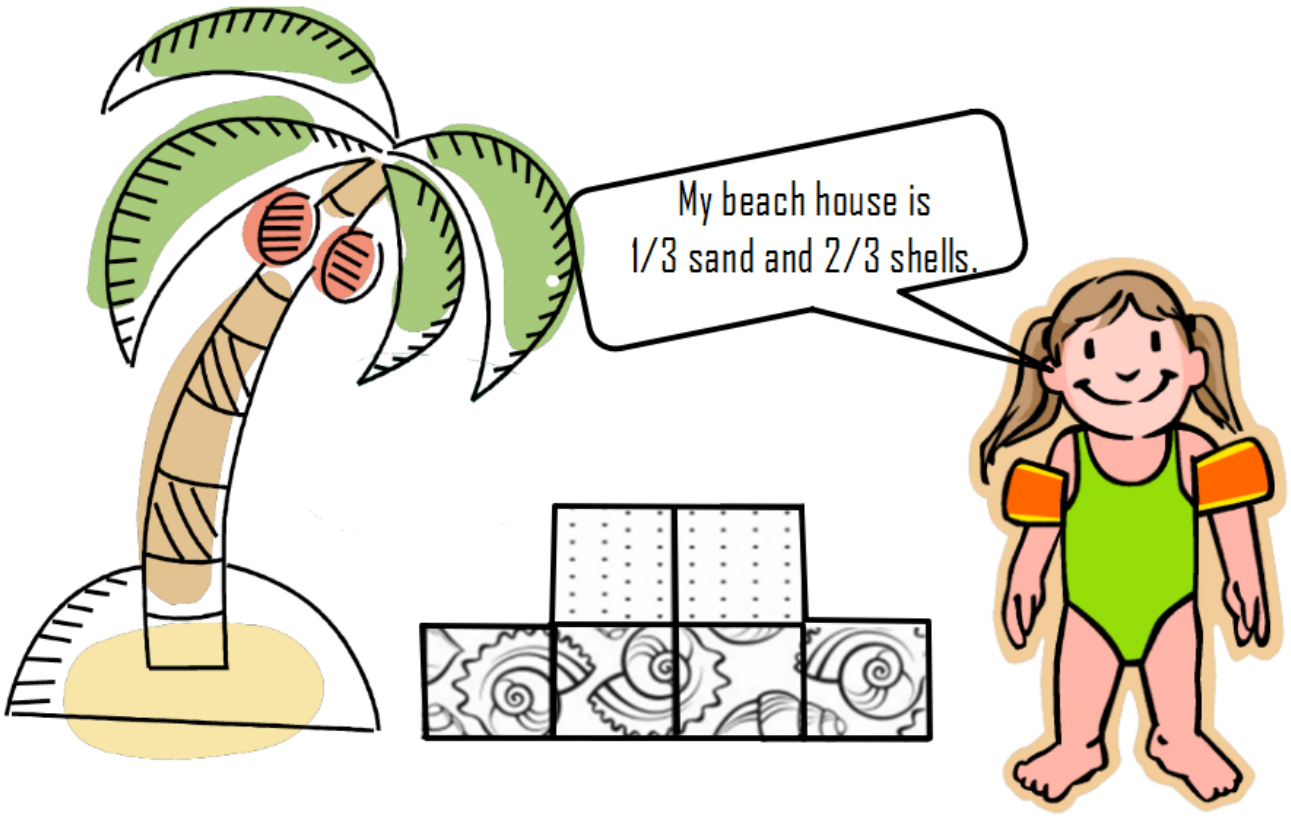
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. **

1.4.D.3 Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$.

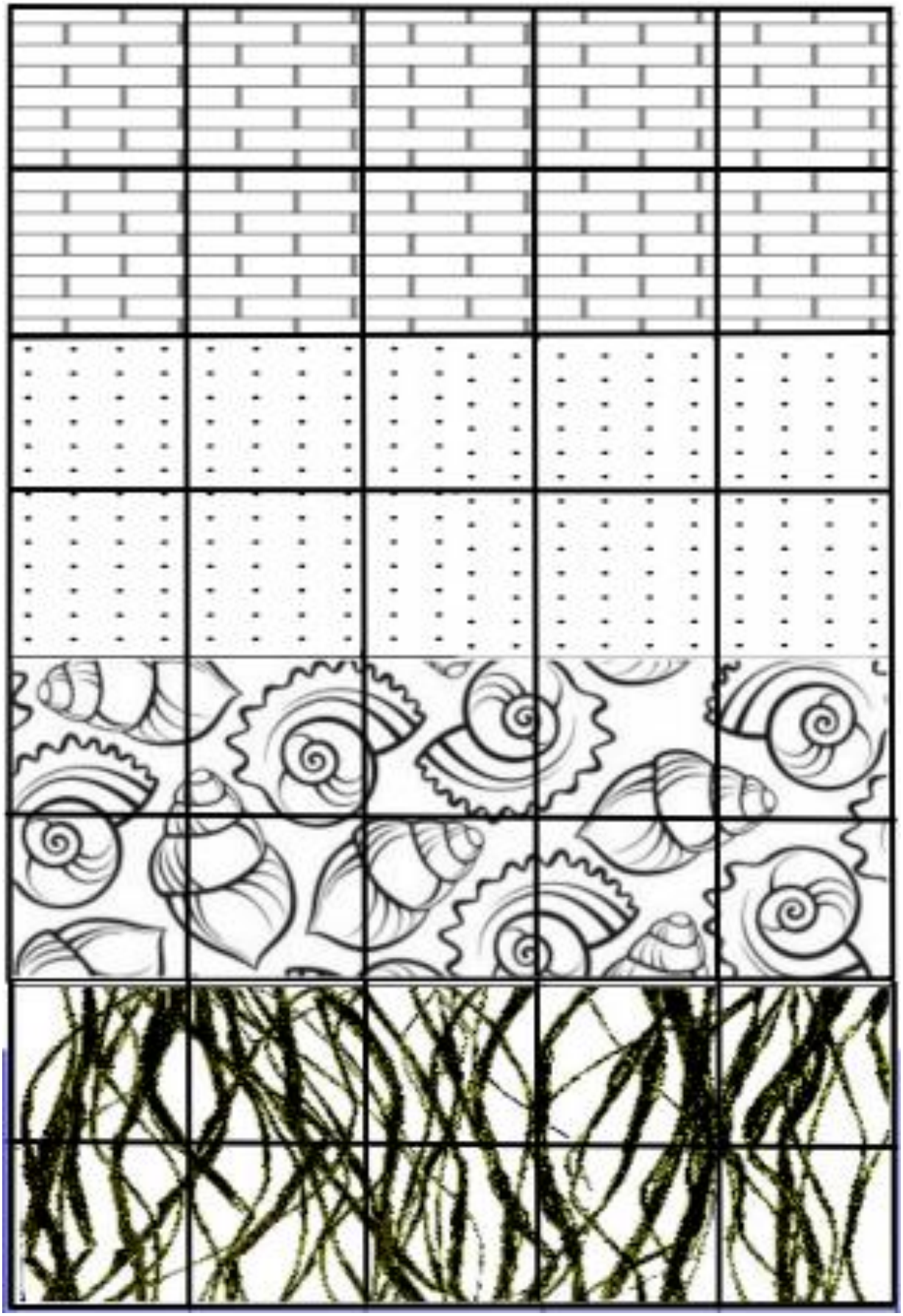
- Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
- Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model.
  Examples: $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$; $\frac{3}{8} = \frac{1}{8} + \frac{2}{8}$; $2\frac{1}{8} = 1 + 1 + \frac{1}{8} = \frac{8}{8} + \frac{8}{8} + \frac{1}{8}$.

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 cards.



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



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

Challenging Problems

http://nrich.maths.org

Fluency Multiplying and Dividing Basic Facts

http://www.edu.dudley.gov.uk/numeracy/ITPs/New%20shockwave%20ITPs/num_itp_multi_board.swf

http://illuminations.nctm.org/activitydetail.aspx?id=155

http://www.bbc.co.uk/skillswise/game/ma13tabl-game-tables-grid-find

http://www.bbc.co.uk/skillswise/game/ma11divi-game-fridge-magnet-division

http://www.bbc.co.uk/schools/starship/maths/games/cross_the_swamp/big_sound/full.shtml

http://aaamath.com