Name: _____ Homeroom: _____ Date: _____

6th Grade Math Summer Assignment

Common Core Math Standards:

- ***6.RP.A.3*** *Use ratio and rate reasoning to solve real-world and mathematical problems.*
- ***5.NF.1*** *Add and subtract fractions with unlike denominators.*
- ***5.NF.2*** *Solve word problems involving addition and subtraction of fractions.*
- ***5.NF.7.*** *Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions*

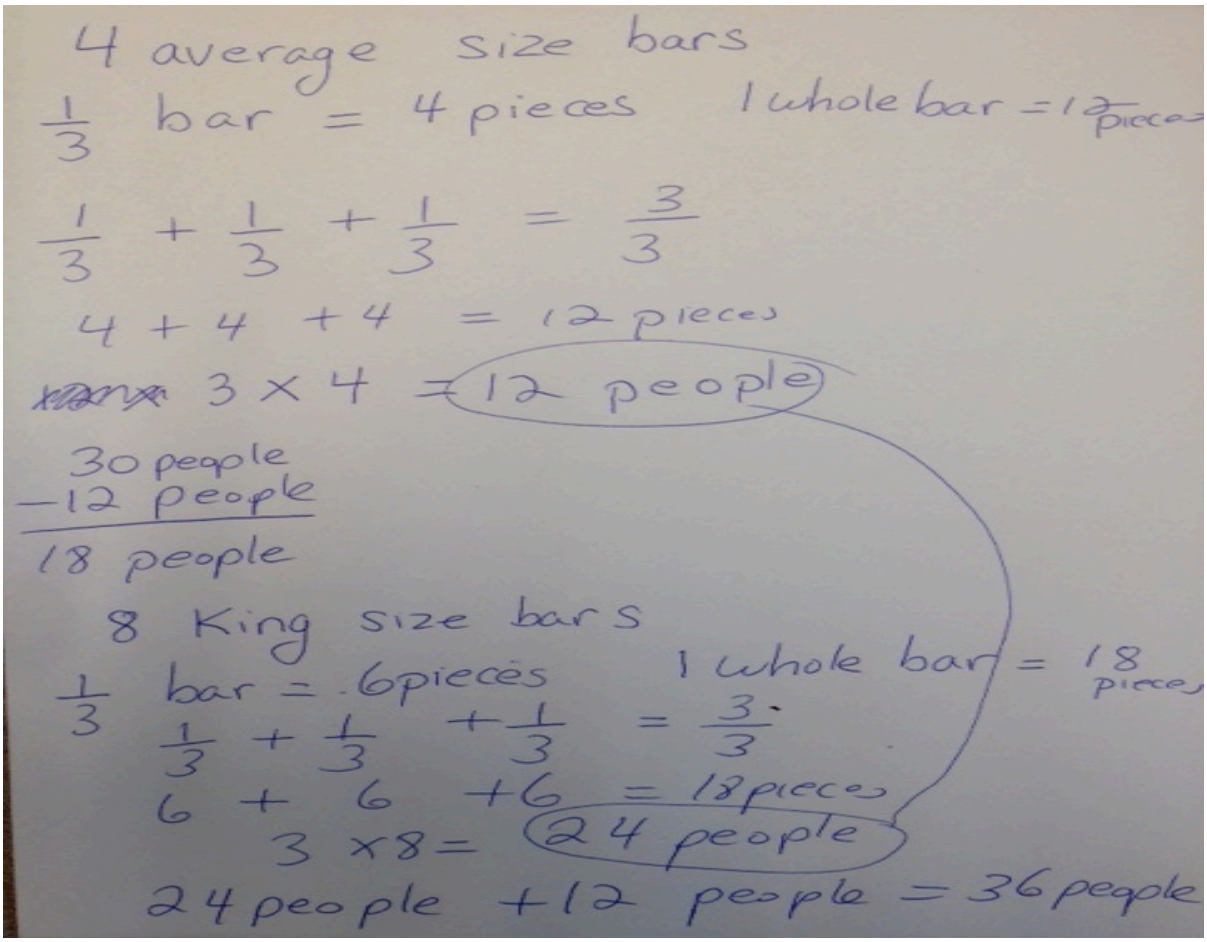
Common Core Math Practices

- ***MP1*** *– Make sense of problems and persevere in solving them.*
- ***MP2 –*** *Reason abstractly and quantitatively.*
- ***MP3 –*** *Construct viable arguments and critique the reasoning of others.*
- ***MP5 –*** *Model with mathematics.*
- ***MP6 –*** *Attend to precision.*
- ***MP7*** *– Look for and make use of structure.*
- ***MP8 –*** *Look for and express regularity in repeated reasoning.*

Scenario: This summer your friend Marco took a family trip to Hershey Park. He believes that he brought back enough candy bars for everyone in your class to share. His assortment included average size bars, which have 12 pieces of chocolate (see below), and king size bars, which have 18 pieces of chocolate. The individual pieces are the same size on both bars.

1) Marco wants everyone to get $\frac{1}{3}$ of an average size candy bar. If there are 30 total students in the class, give at least one possible combination of average size candy bars *and* king size candy bars that would need to be used.

2) Marco says that he can use 4 average size bars and 8 king size bars. His calculations are shown below.



Do you agree or disagree with Marco's work? Justify your reasoning with an explanation ***and*** either modeling or numerical representation.

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2) **Part A**: Draw a model to represent the sum of $\frac{1}{3}$ of an average size candy bar and $\frac{7}{9}$ of a king size candy bar.

Part B: Solve problem *2a* numerically below.

Part C: You and three friends want to divide the total amount of chocolate in Part A equally. How much chocolate would each of you receive? Solve numerically and justify your answer using either modeling and/or a written explanation.

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4) **Part A**: If an average size candy bar costs \$1.25 and a king size bar costs \$1.75, find the cheapest way to purchase candy bars for 30 students if each receive $\frac{1}{3}$ of an average size bar.

Part B: How would part A change if you decided to give each student $\frac{3}{4}$ of an average size candy bar? Be specific in what would change.