6th Grade Summer Mathematics Review Packet

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Dear Rising 6th Graders,

We would like to wish you all a happy summer and congratulate you on finishing a successful year in 5th grade! We are excited for our class next year and to spend the year with you all.

SUMMER MATH PACKET

- You will be quizzed on this material during the first full week of school.
- Calculators will not be allowed on the quiz you take covering this material, and so it will only hurt you if you use one to complete this assignment. Please do not use a calculator on this assignment, except to check your work; however, note that you will not be able to do this on the quiz.
- The goal of this assignment is not to "get it done as fast as possible." The purpose is to make sure you don't forget all that you learned this past year. Please pace yourself.

Don't try to complete the assignment all at once. Similarly, don't put it off until the last week in August.

To help you pace yourself, we are asking that you and your parent/guardian keep track of your work. Try your best to complete one worksheet per week. We understand that it is summer, and that this might not be possible every week. Please use the chart on the back of this page to keep track of the work you do this summer. We will collect this form when we collect your work in September. Do your best at pacing yourself, and be honest in reporting how you complete your work.

We look forward to working with you all next year. Our hope is that this assignment will allow us to "hit the ground running" at the beginning of the year, so that you will be very well prepared for 6th grade math. Please feel free to e-mail either of us at any point during the summer. Our e-mails are kathleen.hanrahan@pcsst.org, katherine.amundson@pcsst.org, ilana.schamberg@pcsst.org, and Shameeka.Thomas@pcsst.org. You are welcome to ask any questions you have or to get hints if you are having trouble with this assignment.

HAPPY SUMMER! WE MISS ALL OF YOU!

Ms. Hanrahan, Mrs. Amundson, Mrs. Linker, and Ms. Thomas ☺

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Please complete this chart as you complete the assignments. You may complete assignments any order you like, as long as you stay on track to finish by the end of August. Good luck, and feel free to e-mail us with questions!

Assignment	Parent/Guardian Signature	Date Completed
Topic 1: Operations with Whole Numbers		
Topic 2: Decimal Place Value		
Topic 3: Adding/Subtracting Decimals		
Topic 4: Multiplying/Dividing Decimals		
Topic 5: Simplifying Fractions		
Topic 6: Making a Common Denominator		
Topic 7: Adding and Subtracting Fractions & Mixed Numbers		
Topic 8: Multiplying and Dividing Fractions & Mixed Numbers		
Topic 9: Order of Operations		
Topic 10: Assortment of Word Problems ☺		
Appendix: charts to help you solve without a calculator.		

TOPIC ONE: OPERATIONS WITH WHOLE NUMBERS

Instructions: Find the answer **without using a calculator**. Calculators will not be allowed on the quiz in the fall. If you do work on a separate sheet of paper, please staple that sheet to this worksheet. *Round your answer to the nearest hundredth for division.*

1. $47 + 32 =$

2. $1289 \div 4 =$

3. $493 - 37 =$

4. $46 \times 72 =$

5. $156 \div 3 =$

TOPIC TWO: DECIMAL PLACE VALUE

Instructions: Find the answer **without using a calculator**. Calculators will not be allowed on the quiz in the fall. If you do work on a separate sheet of paper, please staple that sheet to this worksheet. *Make sure you are reading the correct place value for each equation.*

Underline the digit in the thousandths place.

1. 756.218
2. 3.672
3. 821.053

Underline the digit in the hundredths place.

4. 12.896
5. 3.602
6. 742.93

Write the correct place value for the following underlined numbers

7. 6.<u>7</u>54 _____
8. 45<u>3</u>.7 _____
9. 270.95<u>4</u> _____

10. Diana measures the dimensions of her kitchen window as she plans to dress them with blinds. Find the place value of the digit 6, if the window is 44.56 inches long.

_____

11. Vivian took 25.34 minutes to cover 5 laps around the park. What is the place value of the digit 3 in the given number?

_____

TOPIC THREE: ADDING AND SUBTRACTING DECIMALS

Instructions: Find the answer **without using a calculator**. Calculators will not be allowed on the quiz in the fall. If you do work on a separate sheet of paper, please staple that sheet to this worksheet. *Remember: The decimal MUST line up, and you MUST annex zeros if necessary.*

1. $1.1 + 2.8$

2. $3.5 + 6.14$

3. $12.66 - 3.41$

4. $9.242 + 0.87$

TOPIC FOUR: MULTIPLYING/DIVIDING DECIMALS

Instructions: Find the answer **without using a calculator**. Calculators will not be allowed on the quiz in the fall. If you do work on a separate sheet of paper, please staple that sheet to this worksheet. *Remember: Decimal points DO NOT need to line up.*

1. 0.63×100

2. 0.12×0.6

3. $211.5 \div 9$

4. 31.002×9

TOPIC 5: SIMPLIFYING FRACTIONS

Instructions: Find the answer **without using a calculator**. Calculators will not be allowed on the quiz in the fall. If you do work on a separate sheet of paper, please staple that sheet to this worksheet.

1. *Identify which of the following are improper fractions.*

   a. $\frac{21}{2}$

   b. $\frac{4}{5}$

   c. $\frac{83}{126}$

   d. $\frac{7}{6}$

2. *Change the mixed numbers to improper fractions. (multiply the whole number by the denominator and add the top- the new number becomes your numerator. Keep the denominator the same)*

   a. $2\frac{4}{5}$

   b. $6\frac{11}{17}$

3. Simplify to lowest terms. (Divide the top and bottom by the same common factor)

   a. $\frac{3}{18}$

   b. $\frac{15}{25}$

   c. $\frac{6}{8}$

TOPIC 6: MAKING A COMMON DENOMINATOR

Instructions: Find the answer **without using a calculator**. Calculators will not be allowed on the quiz in the fall. If you do work on a separate sheet of paper, please staple that sheet to this worksheet.

1. What is the least common denominator of $\frac{1}{4}$ and $\frac{1}{6}$?

2. What is the least common denominator of $\frac{1}{2}$ and $\frac{1}{3}$?

3. What is the least common denominator of $\frac{2}{3}$ and $\frac{1}{5}$?

4. What is the least common denominator of $\frac{1}{7}$ and $\frac{3}{14}$?

5. Write equivalent fractions for $\frac{5}{9}$ and $\frac{3}{10}$ using the least common denominator.

$\frac{5}{9} =$ ___ and $\frac{3}{10} =$ ___

TOPIC 7: ADDING/SUBTRACTING FRACTIONS & MIXED NUMBERS

Instructions: Find the answer **without using a calculator**. Calculators will not be allowed on the quiz in the fall. If you do work on a separate sheet of paper, please staple that sheet to this worksheet. *Remember: To add or subtract fractions you NEED a common denominator.*

1. $\frac{11}{12} + \frac{1}{12}$

2. $\frac{7}{10} + \frac{2}{10} + \frac{8}{10}$

3. $6\frac{1}{2} - 3$

4. $9\frac{3}{8} - 5\frac{5}{6}$

5. $2\frac{1}{2} - 1\frac{3}{4}$

TOPIC 8: MULTIPLYING/DIVIDING FRACTIONS & MIXED NUMBERS

Instructions: Find the answer **without using a calculator**. Calculators will not be allowed on the quiz in the fall. If you do work on a separate sheet of paper, please staple that sheet to this worksheet. *Remember: Use the C+ method when there is mixed numbers involved.*

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

2. $6 \times \frac{2}{3}$

3. $5 \div \frac{2}{3}$

4. $1 \div \frac{1}{8}$

5. $2\frac{3}{4} \times 3\frac{1}{2}$

TOPIC NINE: ORDER OF OPERATIONS

Instructions: Find the answer **without using a calculator**. Calculators will not be allowed on the quiz in the fall. If you do work on a separate sheet of paper, please staple that sheet to this worksheet. *Follow PEMDAS.*

1. $(4 \; x \; 3) \; + \; [(3 \; - 1) \; x \; 3] \; =$

2. $3^2 + 6 - 2 \times 7 =$

3. $7 \times \left(4^3 - 6\right) \div 2 =$

4. $124 - 3 \times \left(7 + 5^2\right) =$

5. $20 \div 5 \times 2 - (6 + 2) \times 7 =$

TOPIC TEN: WORD PROBLEMS

Instructions: Find the answer **without using a calculator**. Calculators will not be allowed on the quiz in the fall. If you do work on a separate sheet of paper, please staple that sheet to this worksheet.

1. Each batch of cookie mix needs 0.4 cups of sugar. If Ashley is making 4 batches of cookies, how many cups of sugar does she need?

2. A baker is making croissants. He has 18 pounds of dough. Each croissant is made from 3 pounds of dough. How many croissants can he make?

3. The penguin nursery is open two times a day: 2/ 3 hour at noon and 5 /12 hour in the afternoon. How much time is the penguin nursery open every day?

4. Jack spent 3/ 4 of an hour biking and 5 /6 of an hour jogging. How much time did Jack exercise in all?

Appendix : Charts to help you solve

Multiplication Table

0	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144