Summer Packet: Students Entering 6th Grade

Goal: The goal of the summer packet is to have students retain what they have learned throughout the 2017-2018 school year.

Process: The BEST way to use this packet would be to spread out the worksheets – maybe one a week – so that it is completed throughout the summer, instead of just "crammed" into a few weeks.

Expectation: The expectation of summer work is for it to be completed in its entirety and for it to be turned on the **first day of school**. *Please see the back of this page for detailed instructions on how to prepare the packet to be turned in*.

<u>This summer packet has two mandatory parts, with an optional 3rd part.</u>

Part 1: Written Assignment "Math in the Real-World"

1. Select three adults to interview (only one of the three adults can be a parent)
2. Ask them the following questions:
    a. In what ways do you use math at your job, or in your day-to-day life?
    b. How regularly do you use math / math concepts?
3. **Type** at least one paragraph that discusses the responses of the three adults while identifying what branch(es) of math is used by each interviewed adult.
    a. Branches of Math: algebra, analysis, geometry, logic, number theory…etc. Google "Branches of Math" if you need more clarification.
4. **Type** at least one paragraph about how you may use math when you are an adult.

Part 2: Worksheets

1. Each worksheet included in the packet needs to be completed, in its entirety, **with all work shown.**
2. If there is not enough room on the worksheet to show your work, please use filler paper.
    a. Each piece of filler paper used needs to be labeled with the worksheet number and title
3. Final answers should be written on the worksheet space provided, even if filler is used.
4. Final answers should also be boxed or circled on both the filler paper and the worksheets

Part 3: Extra Practice (Optional)

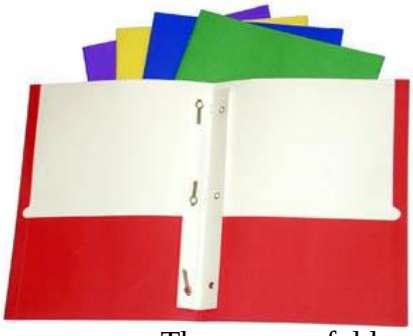
If you're looking for a way to sharpen your mathematical skills beyond what is required, "thatquiz.org" would be a great resource to use.

Suggestion:

1. Identify a skill that needs a bit of practice (ex: adding and subtracting integers)
2. Create a quiz that will help you practice those skills
3. Keep track of how many questions you answer correctly each time you take it.

Preparation for Turn In:

1. Please place everything in a three-prong folder (NOT a three ringed binder).
2. Use this order:
    a. Part 1: Written Assignment
    b. Part 2: Worksheets and Work
        i. Worksheet 1
        ii. Worksheet 2
        iii. Any filler used for Worksheets 1 and 2
        iv. Worksheet 3
        v. Worksheet 4
        vi. Any filler used for Worksheets 3 and 4
        vii. Worksheet 5
        viii. Worksheet 6
        ix. Any filler used for Worksheets 5 and 6
        x. Worksheet 7
        xi. Worksheet 8
        xii. Any filler used for Worksheets 7 and 8
    c. (Optional) Part 3: Extra Practice



Three prong folder

3. Name and Grade ENTERING INTO needs to be written on the outside front cover as well as the inside front cover
4. This instructional page can be detached and placed in the front pocket of the folder for an easy reference.

5. **The summer packet is due on the FIRST DAY OF SCHOOL**.

If you get stuck on a concept, use google…it's a GREAT RESOURCE!

Some options / places that may help you:

- https://www.khanacademy.org/
- https://www.youtube.com/user/learnmathtutorials
- http://patrickjmt.com/
- http://student-tutor.com/blog/top-10-math-websites/

Worksheet 1: Number Sense

Part 1: Complete the number sentence by using >, <, or = to compare the numbers.

1.	2.	3.	4.
4.863 4.868	8.752 8.849	3.011 3.001	1.980 1.98

Part 2: Round each number to the place value of the underlined digit.

5.	6.	7.	8.
3<u>8</u>1,574	10.<u>2</u>84	<u>1</u>82,601,597	3<u>6</u>.91
9.	10.	11.	12.
659,<u>0</u>14	81.9<u>8</u>5	7<u>8</u>4,331,562	5.5<u>4</u>8

Part 3: Order the numbers from least to greatest

13.	14.
368,852 352,036 381,957	5,603,487 5,630,487 5,067,487

Part 4: Write each number in standard form

15. $10{,}000{,}000{,}000 + 30{,}000{,}000 + 600{,}000 + 20{,}000 + 500 + 3$

16. Six hundred forty-eight billion, one hundred twelve million, thirty-three thousand, nine hundred nine

Part 5: Identify the place value of the underlined digit

17.	18.	19.	20.
5.6<u>3</u>	6.21<u>8</u>	2.<u>3</u>49	4.0<u>6</u>7

Worksheet 2: Adding, Subtracting, Multiplying, and Dividing Review

Find the sum, difference, product, or quotient. Show ALL work. If there's not enough room, use filler paper.

1. $13{,}659 - 7{,}948$	2. $6{,}542 + 9{,}963$	3. $70{,}983 - 35{,}494$
4. $514{,}819 + 177{,}891$	5. $2 \times 66 \times 50$	6. $25 \times 9 \times 4$
7. 14×88	8. 45×712	9. 362×22
10. $661 \div 3$	11. $89 \div 9$	12. $1{,}546 \div 2$
13. $430 \div 42$	14. $14{,}080 \div 28$	15. $7{,}531 \div 25$

Worksheet 3: Adding and Subtracting Decimals

Find the sum or difference. Show ALL work. If there's not enough room, use filler paper.

1. $9.8 + 2.563$	2. $0.7 + 0.685$	3. $14.55 + 8.92$
4. $33.42 + 17.833$	5. $1.19 + 15.86$	6. $76.75 + 7.675$
7. $0.19 + 0.999$	8. $92.5 + 8.825$	9. $3.8 - 2.63$
10. $4.83 - 2.165$	11. $22.31 - 8.203$	12. $6.2 - 0.5$
13. $47.51 - 33.415$	14. $0.9 - 0.778$	15. $10.0 - 4.32$

Worksheet 4: Multiplying and Dividing Decimals

Find the product or quotient. Show ALL work. If there's not enough room, use filler paper.

1. 5.2×8	2. 19.5×2	3. 10×5.411
4. 5.6×0.8	5. 2.5×0.34	6. 4.02×1.8
7. $73.5 \div 10$	8. $2.37 \div 30$	9. $35.4 \div 12$
10. $8.67 \div 17$	11. $83.2 \div 1{,}000$	12. $83.58 \div 42$

Worksheet 5: Adding and Subtracting Fractions

Find the sum or difference. Write your answer as a fraction or mixed number in simplest form. Show ALL work. If there's not enough room, use filler paper.

1. $\frac{3}{8}+\frac{7}{8}$	2. $\frac{5}{6}-\frac{1}{6}$	3. $\frac{3}{11}+\frac{1}{11}+\frac{5}{11}$
4. $\frac{11}{20}-\frac{3}{20}$	5. $\frac{1}{4}+\frac{3}{8}$	6. $\frac{7}{8}-\frac{1}{2}$
7. $\frac{1}{10}+\frac{1}{5}+\frac{1}{10}$	8. $\frac{15}{16}-\frac{3}{4}$	9. $\frac{1}{3}+\frac{3}{5}+\frac{7}{10}$
10. $\frac{7}{8}-\frac{1}{5}$	11. $2\frac{1}{8}+5\frac{3}{8}$	12. $6\frac{1}{6}-3\frac{5}{6}$
13. $1\frac{5}{8}+1\frac{1}{3}$	14. $2\frac{7}{8}-1\frac{1}{2}$	15. $8-3\frac{3}{7}$

Worksheet 6: Multiplying and Dividing Fractions

Find the product or quotient. Write your answer as a fraction or mixed number in simplest form. Show ALL work. If there's not enough room, use filler paper.

1. $\frac{2}{3} \times 21$	2. $\frac{8}{9} \times 117$	3. $25 \times \frac{2}{5}$
4. $\frac{2}{3} \times \frac{4}{5}$	5. $\frac{3}{7} \times \frac{3}{5}$	6. $\frac{1}{6} \times \frac{1}{5} \times 12$
7. $3\frac{1}{6} \times 1\frac{1}{3}$	8. $5\frac{2}{5} \times 2\frac{7}{12}$	9. $7 \div \frac{1}{5}$
10. $3 \div \frac{1}{8}$	11. $4 \div \frac{2}{7}$	12. $18 \div \frac{9}{10}$

Worksheet 7: Order of Operations

Use the order of operations to evaluate each expression. Show ALL work, step-by-step and line-by-line. If there's not enough room, use filler paper.

1. $(4+5)\times 3$	2. $9-1+2\div 2$	3. $12\div 6\times 3-5$
4. $2+(8-5)\times 6$	5. $10\div(11-9)+9$	6. $3\times(1+3)+8\div 4$
7. $50-10-50\div 10+5$	8. $8\times(5-1)\div(6-2)$	9. $12+8\times 2+6$
10. $(40+10)+10\div 2$	11. $100+2\times 50+100$	12. $50+50\times 2-50\div 50$
13. $7\times 3-6\times 1+2\times 5$	14. $8+(7-5)\times 9$	15. $(4+3)+24\div 6$

Worksheet 8: Solving Equations

Solve each equation using mental math.

1. $16 + p = 21$	2. $9v = 45$	3. $60 - s = 40$
4. $f + 15 = 27$	5. $56 \div d = 8$	6. $11 \times b = 11$
7. $62 + w = 78$	8. $q - 14 = 30$	9. $48 - b = 2$
10. $5 \times e = 110$	11. $64 \div k = 8$	12. $9s = 72$
13. $r - 15 = 30$	14. $g + 8 = 12$	15. $48 \div f = 6$