Incoming 7th Grade Summer Math Packet

This packet will help you retain the skills you learned in 6th grade so we can continue to build on these when you return in August!

This packet is due the first week of class and will be graded on work accuracy and completion. It will be one of your first grades of 8th grade. <u>You will also be tested on these skills when you return to school in August.</u> Be sure to answer every question and <u>SHOW ALL WORK!!</u> <u>NO WORK = NO CREDIT</u>

Please follow instructions and do not use a calculator where specified!

<u>Thank you!</u>
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Summer Math Packet for Incoming 7th Grade

Week 1

Day 1– Basic Skills	Day 2 –Operations with Decimals
Simply the following fractions 1. $\dfrac{12}{20} =$ 2. $\dfrac{6}{27} =$ 3. $\dfrac{12}{18} =$	1. $5 + 7.84 + 28.062$ 2. $503 + 236.408 + 2.898$
Day 3 –Operations with Fractions	**Day 4 – Expressions**
Add the following fractions. Remember to use common denominators. 1. $\dfrac{1}{4} + \dfrac{3}{8} =$ 2. $\dfrac{7}{9} + \dfrac{5}{6} =$	*Evaluate* 1. $150 + n$ if $n = 15$ 2. $30n$ if $n = 2.5$ 3. $5n + 3$ if $n = 4$
Day 5 – Solving Equations	**Day 6 – Potpourri** **Exponents**
1. $x + 9 = 18$ 2. $n + 3.5 = 10.5$	*Write each expression in exponential form* 1. $8 \cdot 8 \cdot 8 =$ 2. $6 \cdot 6 \cdot 6 \cdot 6 \cdot 6 =$ 3. $4 \cdot 4 \cdot 4 \cdot 4 =$

Week 2

Day 1 –Basic Skills	Day 2 –Operations with Decimals
Find the equivalent fraction for each 1. $\dfrac{3}{8} = \dfrac{}{48}$ 2. $\dfrac{2}{5} = \dfrac{}{20}$ 3. $\dfrac{1}{6} = \dfrac{}{30}$	1. 215 – 204.8 2. 100 – 21.05 – 0.074
Day 3 –Operations with Fractions	**Day 4 – Expressions**
Subtract the following fractions. Remember to use common denominators. 1. $\dfrac{7}{8} - \dfrac{3}{6} =$ 2. $\dfrac{3}{4} - \dfrac{1}{5} =$	*Evaluate* 1. 12n if n = 9 2. 3n + 2 if n = 5 3. 4n ÷ k if n = 6 and k = 8
Day 5 – Solving Equations	**Day 6 – Potpourri** **Exponents**
1. x – 4 = 12 2. n – 5.4 = 8.5	*Write each expression as repeated multiplication and find each value* 1. $2^5 =$ 2. $3^4 =$ 3. $5^3 =$

Week 3

Day 1 – Basic Skills	Day 2 –Operations with Decimals
Order the following from least to greatest 1. 2.17, 2.3, $2\frac{1}{8}$ 2. 0.2, 0.02, $\frac{1}{4}$	1. $7.32 \cdot 4.6$ 2. $1.36 \cdot 0.08$
Day 3 –Operations with Fractions	**Day 4 – Expressions**
1. $\frac{3}{8} \cdot \frac{5}{6} =$ 2. $3\frac{1}{2} \cdot \frac{7}{10} =$	*Translate each phrase to an expression* 1. a number minus 7 2. the difference of two and a number 3. the sum of a number and twenty-two
Day 5 – Solving Equations 1. $2x = 12$ 2. $5n = 3.5$	**Day 6 – Potpourri** **Order of Operations** *Simplify each expression* 1. $4^2 + 48 \div (10 - 4)$ 2. $50 \div 5^2 + 7 \cdot 3$

Week 4

Day 1 – Basic Skills	Day 2 –Operations with Decimals
What is the reciprocal of each of the following 1. $\dfrac{5}{6}$ 2. 8 3. $2\dfrac{1}{3}$	1. $6.48 \div 0.36$ 2. $27.9 \div 6.2$
Day 3 –Operations with Fractions 1. $\dfrac{2}{5} \div \dfrac{14}{15} =$ 2. $\dfrac{7}{8} \div \dfrac{1}{2} =$	**Day 4 – Expressions** *Translate each phrase to an expression* 1. three more than n 2. the product of fourteen and g 3. the quotient of n and 5
Day 5 – Solving Equations 1. $\dfrac{x}{4} = 5$ 2. $\dfrac{n}{3} = 3.3$	**Day 6 – Potpourri** **Order of Operations** *Simplify each expression* 1. $7 + 24 \div 6 \cdot 2$ 2. $5 \cdot (28 \div 7) - 4^2$

Week 5

Day 1 - Basic Skills	Day 2 -Operations with Decimals
Write the following fractions as decimals	1. 11.49 + 0.083 =
1. $\frac{3}{4}$	
2. $\frac{2}{5}$	2. 84.34 - 67.235 =
3. $\frac{7}{20}$	

Day 3 -Operations with Fractions	Day 4 - Expressions
1. $4\frac{2}{3} - 2\frac{1}{9} =$	*Expand each expression by using the distributive property* 1. 2(x + 3)
2. $1\frac{7}{10} + 3\frac{3}{4} =$	2. 4(2 + n)

Day 5 - Solving Equations	Day 6 - Potpourri
1. 2x + 4 = 10	*Find the GCF for each set* 1. 24 and 108
2. 3x + 5 = 11	2. 45, 18, and 39

Week 6

Day 1 – Basic Skills	Day 2 –Operations with Decimals
Write each improper fraction as a mixed number and each mixed number as an improper fraction.	1. $5.23 \cdot 3.2 =$
1. $\dfrac{39}{4}$ 2. $\dfrac{26}{7}$	
3. $7\dfrac{5}{6}$ 4. $6\dfrac{3}{8}$	2. $5.13 \div 27 =$

Day 3 –Operations with Fractions	Day 4 – Expressions
1. $2\dfrac{1}{4} \cdot 2\dfrac{2}{3} =$	*Expand the expressions using the distributive property* 1. $4 (2 + 3x)$
2. $3\dfrac{1}{8} \cdot 1\dfrac{1}{4} =$	2. $5 (4 + 6x)$

Day 5 – Solving Equations	Day 6 – Potpourri
1. $x + 2x + 3 = 15$	*Write the prime factorization of each number* 36 54
2. $x + 6\dfrac{2}{3} = 11$	