Summer Packet 2021: Math 7

This packet is intended to keep the math skills you learned in 6th grade fresh in your mind during the summer. **Please show your work for every problem.** Use loose leaf paper if you need extra room. You will receive a grade for completing the packet (with ALL work shown) upon returning to school on August 11th, 2021. You will also have a quiz on these skills.

Concept 1: Adding, subtracting, multiplying, and dividing with fractions

Directions: Solve each problem showing all steps and circle your answer. Simplify your answer when possible. NO CALCULATOR. Show your work!

1. $2\frac{1}{4} + \frac{3}{4} =$	2. $2\frac{5}{8} - 1\frac{2}{4} =$
3. $\frac{11}{12} \times \frac{2}{4} =$	4. $3\frac{15}{20} \div \frac{4}{5} =$
5. $4\frac{1}{3} + 2\frac{2}{6} + \frac{4}{12} - \frac{3}{4} =$	6. $3\frac{1}{3} \times \frac{2}{6} \times \frac{4}{12} \div \frac{3}{4} =$
7. $\frac{1}{4} + \frac{3}{24} + \frac{7}{8} - \frac{1}{2} =$	8. $2\frac{3}{8} + \frac{2}{20} - 1\frac{1}{5}$

Concept 2: Adding, subtracting, multiplying, and dividing with decimals

Directions: Solve each problem showing all steps and circle your answer. Simplify your answer when possible. NO CALCULATOR

1. $4.5 + 3 =$	2. $\dfrac{16.8}{4.2} =$
3. $3 - 1.78 =$	4. $16.2 + 7.58 - 3.6 - 1.4 =$
5. $\dfrac{82}{4} =$	6. $5.5 \times 3 \times 2.5 \div 1.5 =$
7. $3 + 2.6 + 3.72 =$	8. $6.1 \times 4 + 2.6 =$
9. $26 \div 3.2 =$	10. $250 \div 12.5 + 7.3 =$

Concept 3: Writing and solving one-step equations
Directions: Solve the following one-step equations. Show all steps & circle your answers.

1. x + 1.8 = 25	2. $\frac{x}{2} = 23$	3. 7.5x = 45
4. x − 2.2 = 16	5. 5. −x = 16	

Directions: Write and solve a one-step equation for each scenario.

6. The difference of a number and $\frac{3}{4}$ is -6.

7. The sum of 10.5 and a number is 23.75

8. The largest ranch in the world is the Australian Outback. It is about 12,000 square miles, which is 5 times the size of the largest United States ranch. Write and solve an equation to find the size of the largest United States Ranch.

Concept 4: Properties
Directions: Complete the chart.

Property	Definition	Example
Commutative Property of Addition		
Commutative Property of Multiplication		
Associative Property of Addition		
Associative Property of Multiplication		

Additive Identity		
Multiplicative Identity		
Multiplicative Property of Zero		

Directions: Name the property shown by each statement.

1. (a x 6) x 5 = a x (6 x 5)	
2. 3 + 7 + 9 = 7 + 3 + 9	
3. 0 x 12 = 0	
4. 1,272 x 1 = 1,272	
5. 15 + 0 = 15	

Concept 5: Changing numeric expressions to algebraic expressions and vice versa
Directions: Change each verbal expression to a numerical expression.

1. The product of 9 and 17 is then divided by 3

2. Four less than 18

3. Twenty-five increased by 6

4. The quotient of a number and 7

Directions: Change each algebraic expression into a verbal expression.

5. 9 + 8

   _____

6. (9 − 3) × 2

   _____

7. 32 ÷ y

   _____

8. $12 \div 4 + 2$

_____

Concept 6: Adding, Subtracting, Multiplying, and Dividing with Integers

Directions: Solve each problem and show your work or explain your thought process.

1. $-3 - 1$	2. $-144 \div -12 + 3$
3. $-2 + 9$	4. $(-6) + (-14) \times 2$
5. $125 - (-103)$	6. $13 + 20 + (-17) + (-13)$
7. $100 \div (-5)$	8. $(-12) - (-11)$
9. $-7 \times -3 \times 2$	10. $(-126) \div 9 + 3$

Integer Operation Practice Game: Students should be fluent with adding, subtracting, multiplying, and dividing with integers. This will direct you to a game that is easy to practice integers.

Link: http://www.hoodamath.com/mobile/games/integerstimedtests.html

QR Code:

Summer Vocabulary Words

Directions: Use www.mathwords.com to define the following vocabulary words. These are words I expect you to be able to use fluently in class this year.

WORD	Definition
1. Inverse Operation	
2. Order of Operations	
3. Algebraic Expressions	
4. Numerical Expressions	
5. Variable	
6. Coordinate Plane	
7. x-axis	
8. y-axis	
9. Coordinate	
10. Evaluate	
11. Equation	
12. Integers	

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Summer Fluency Practice

Directions: You should be fluent in operations with integers. You should be able to complete this worksheet in 2 minutes to be considered fluent.

$9 - 6 =$	$(-5) + 7 =$	$(-9) + (-2) =$
$7 - (-2) =$	$(-2) + 2 =$	$(-8) - 1 =$
$5 - (-1) =$	$2 + 1 =$	$7 + 1 =$
$15 \div 3 =$	$8 \div (-4) =$	$(-4) - 4 =$
$9 \times (-8) =$	$25 \div (-5) =$	$1 + 7 =$
$4 \div 2 =$	$(-6) \times (-1) =$	$5 \times 6 =$
$16 \div 2 =$	$5 + 5 =$	$(-5) \times (-2) =$
$6 \times (-8) =$	$9 + (-7) =$	$(-27) \div (-3) =$
$9 - 1 =$	$4 \times (-7) =$	$(-2) - 7 =$
$3 + 4 =$	$(-6) - (-1) =$	$5 - (-4) =$

$5 + 4 =$

$(-24) \div 8 =$

$(-9) \div (-1) =$

$(-10) \div 5 =$

$63 \div (-9) =$

$(-6) \div (-6) =$

$(-25) \div (-5) =$

$(-6) \div 3 =$

$4 - (-9) =$

$(-3) - (-1) =$

$2 \times 2 =$

$6 + (-1) =$

$1 + 8 =$

$(-6) \times (-6) =$

$8 \div (-1) =$

$5 \div (-5) =$

$3 \div 3 =$

$(-2) + 1 =$

$9 - 2 =$

$3 - (-3) =$

$9 \times (-9) =$

$6 \times (-3) =$

$4 + 4 =$

$8 \times (-4) =$

$(-6) + (-6) =$

$(-8) - 3 =$

$(-5) \times (-9) =$

$5 + (-6) =$

$(-4) \div (-1) =$

$(-2) + (-7) =$

Summer Fluency Practice

Directions: You should be fluent in Rounding Decimal Numbers. You should be able to complete this worksheet in *** minutes to be considered fluent

Rounding Decimal Numbers

Round each number to the nearest tenth.

1)   6.84 _____   6)   3.69 _____

2)   6.23 _____   7)   9.81 _____

3)   4.13 _____   8)   6.13 _____

4)   4.15 _____   9)   3.44 _____

5)   6.45 _____   10)   7.88 _____

Round each number to the nearest tenth.

1)   6.685 _____   6)   4.375 _____

2)   2.268 _____   7)   9.994 _____

3)   8.798 _____   8)   9.126 _____

4)   6.449 _____   9)   6.442 _____

5)   1.277 _____   10)   2.715 _____

Rounding Decimals

Name:

Round each number to the correct place value.

1) Round to the nearest tenth. 8.54 _____   1. _____

2) Round to the nearest whole number. 99.59 _____   2. _____

3) Round to the nearest tenth. 310.286 _____   3. _____

4) Round to the nearest whole number. 6.4 _____   4. _____

5) Round to the nearest whole number. 6.805 _____   5. _____

6) Round to the nearest tenth. 9.725 _____   6. _____

7) Round to the nearest hundredth. 118.380 _____   7. _____

8) Round to the nearest tenth. 90.69 _____   8. _____

9) Round to the nearest tenth. 65.85 _____   9. _____

10) Round to the nearest whole number. 70.59 _____   10. _____

11) Round to the nearest hundredth. 76.684 _____   11. _____

12) Round to the nearest hundredth. 815.755 _____   12. _____

13) Round to the nearest tenth. 877.71 _____   13. _____

14) Round to the nearest hundredth. 12.261 _____   14. _____

15) Round to the nearest whole number. 16.4 _____   15. _____

16) Round to the nearest whole number. 95.81 _____   16. _____

17) Round to the nearest hundredth. 2.408 _____   17. _____

18) Round to the nearest hundredth. 3.993 _____   18. _____

19) Round to the nearest whole number. 76.3 _____   19. _____

20) Round to the nearest hundredth. 716.514 _____   20. _____