

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Summer Packet 2023: 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 9<sup>th</sup>, 2022.

### 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. $\frac{16.8}{4.2} =$                 |
| 3. $3 - 1.78 =$       | 4. $16.2 + 7.58 - 3.6 - 1.4 =$          |
| 5. $\frac{82}{4} =$   | 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: 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.  $9 + 8$

\_\_\_\_\_

7.  $32 \div y$

\_\_\_\_\_

6.  $(9 - 3) \times 2$

\_\_\_\_\_

8.  $12 \div 4 + 2$

\_\_\_\_\_

### Concept 5: 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](http://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             |            |

## 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.

## 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 \_\_\_\_\_



**Round each number to the correct place value.****Answers**

- 1) Round to the nearest tenth.      8.54      \_\_\_\_\_
- 2) Round to the nearest whole number.      99.59      \_\_\_\_\_
- 3) Round to the nearest tenth.      310.286      \_\_\_\_\_
- 4) Round to the nearest whole number.      6.4      \_\_\_\_\_
- 5) Round to the nearest whole number.      6.805      \_\_\_\_\_
- 6) Round to the nearest tenth.      9.725      \_\_\_\_\_
- 7) Round to the nearest hundredth.      118.380      \_\_\_\_\_
- 8) Round to the nearest tenth.      90.69      \_\_\_\_\_
- 9) Round to the nearest tenth.      65.85      \_\_\_\_\_
- 10) Round to the nearest whole number.      70.59      \_\_\_\_\_
- 11) Round to the nearest hundredth.      76.684      \_\_\_\_\_
- 12) Round to the nearest hundredth.      815.755      \_\_\_\_\_
- 13) Round to the nearest tenth.      877.71      \_\_\_\_\_
- 14) Round to the nearest hundredth.      12.261      \_\_\_\_\_
- 15) Round to the nearest whole number.      16.4      \_\_\_\_\_
- 16) Round to the nearest whole number.      95.81      \_\_\_\_\_
- 17) Round to the nearest hundredth.      2.408      \_\_\_\_\_
- 18) Round to the nearest hundredth.      3.993      \_\_\_\_\_
- 19) Round to the nearest whole number.      76.3      \_\_\_\_\_
- 20) Round to the nearest hundredth.      716.514      \_\_\_\_\_

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_