# MTH 01

Midterm Package

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## **Basic operations of whole numbers**

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Problem 1. 2. (1 pt) yunchun/problems/01/intervention_1/addition2.pg
7709 + 9707=
Problem 2. 7. (1 pt) yunchun/problems/01/intervention_1/multiplication1.pg
25 · 13=
Problem 3. 6. (1 pt) yunchun/problems/01/intervention_1/division4.pg
When 7 is divided by 18, the quotient is and the remainder is
Problem 4. 8. (1 pt) yunchun/problems/01/intervention_1/multiplication2.pg
302 · 103=
Problem 5. 10. (1 pt) yunchun/problems/01/intervention_1/subtraction2.pg
1008 – 36=
Problem 6. 3. (1 pt) yunchun/problems/01/intervention_1/division1.pg
216 ÷ 6=
Problem 7. 4. (1 pt) yunchun/problems/01/intervention_1/division2.pg
1463 ÷ 11=
Problem 8. 1. (1 pt) yunchun/problems/01/intervention_1/addition1.pg
47 + 987=
Problem 9. 9. (1 pt) yunchun/problems/01/intervention_1/subtraction1.pg
5324 – 2108=
Problem 10. 5. (1 pt) yunchun/problems/01/intervention_1/division3.pg
When 127 is divided by 12, the quotient is and the remainder is

### Single digit signed numbers

Problem 1. 15. (1 pt) yunchun/problems/01/intervention\_2/fraction6.pg Problem 2. 16. (1 pt) yunchun/problems/01/intervention\_2/multiplication1.pg 6 · 8= \_\_\_\_ Problem 3. 1. (1 pt) yunchun/problems/01/intervention\_2/addition1.pg 4 + 8 =\_\_\_\_ Problem 4. 19. (1 pt) yunchun/problems/01/intervention\_2/multiplication3.pg (-1)(6) =Problem 5. 47. (1 pt) yunchun/problems/01/intervention\_2/zero10.pg  $(-6) \cdot 0 =$ \_\_\_\_ Problem 6. 41. (1 pt) yunchun/problems/01/intervention\_2/zero5\_01.pg 4 - 0 =\_\_\_\_ Problem 7. 20. (1 pt) yunchun/problems/01/intervention\_2/multiplication4.pg 8(-5) =Problem 8. 34. (1 pt) vunchun/problems/01/intervention\_2/zero1.pg -7 + 0 =\_\_\_\_ Problem 9. 43. (1 pt) yunchun/problems/01/intervention\_2/zero7.pg -1-(-1)=\_\_\_\_ Problem 10. 11. (1 pt) yunchun/problems/01/intervention\_2/fraction2.pg  $\frac{32}{4} =$ \_\_\_\_ Problem 11. 25. (1 pt) yunchun/problems/01/intervention\_2/subtraction1\_\_01.pg 15 – 9= \_\_\_\_ Problem 12. 33. (1 pt) yunchun/problems/01/intervention\_2/subtraction9.pg (-10) - (-4) =Problem 13. 3. (1 pt) yunchun/problems/01/intervention\_2/addition2.pg

-1+3=\_\_\_\_

Problem 14. 4. (1 pt) yunchun/problems/01/intervention_2/addition3.pg
$(-5) + 2 = \underline{\hspace{1cm}}$
Problem 15. 49. (1 pt) yunchun/problems/01/intervention_2/zero12.pg
Divide or state that the division is undefined. (In this case, enter <i>undefined</i> .)
$\frac{-12}{0} = $
Problem 16. 40. (1 pt) yunchun/problems/01/intervention_2/zero5.pg
-7-0= <u></u>
Problem 17. 37. (1 pt) yunchun/problems/01/intervention_2/zero2_01.pg
0+2=
Problem 18. 31. (1 pt) yunchun/problems/01/intervention_2/subtraction7.pg
1 – 5=
Problem 19. 2. (1 pt) yunchun/problems/01/intervention_2/addition1_01.pg
8 + 5=
Problem 20. 17. (1 pt) yunchun/problems/01/intervention_2/multiplication1_01.pg
4 · 8=
Problem 21. 8. (1 pt) yunchun/problems/01/intervention_2/division1.pg
9 ÷ 9=
Problem 22. 35. (1 pt) yunchun/problems/01/intervention_2/zero1_01.pg
2+0=
Problem 23. 22. (1 pt) yunchun/problems/01/intervention_2/multiplication6.pg
−8(−1)= <u> </u>
Problem 24. 10. (1 pt) yunchun/problems/01/intervention_2/fraction1.pg
$\frac{-4}{-1} = $
Problem 25. 9. (1 pt) yunchun/problems/01/intervention_2/division1_01.pg
25 ÷ 5=
Problem 26. 21. (1 pt) yunchun/problems/01/intervention_2/multiplication5.pg
(6)(-6) =

Problem 27. 6. (1 pt) yunchun/problems/01/intervention\_2/addition5.pg (-3) + (-9) =Problem 28. 30. (1 pt) yunchun/problems/01/intervention\_2/subtraction6.pg 1 - (-8) =Problem 29. 36. (1 pt) yunchun/problems/01/intervention\_2/zero2.pg 0 + (-3) =Problem 30. 27. (1 pt) yunchun/problems/01/intervention\_2/subtraction3.pg -1-5=\_\_\_\_ Problem 31. 13. (1 pt) yunchun/problems/01/intervention\_2/fraction4.pg  $\frac{-21}{3} =$ \_\_\_\_ Problem 32. 24. (1 pt) yunchun/problems/01/intervention\_2/subtraction1.pg 6 - 3 =Problem 33. 14. (1 pt) yunchun/problems/01/intervention\_2/fraction5.pg  $-\frac{28}{4} =$ \_\_\_\_ Problem 34. 38. (1 pt) yunchun/problems/01/intervention\_2/zero3.pg 0 - 7 =Problem 35. 44. (1 pt) yunchun/problems/01/intervention\_2/zero7\_01.pg 6 - 6 =\_\_\_\_ Problem 36. 48. (1 pt) yunchun/problems/01/intervention\_2/zero11.pg  $0 \cdot (-1) =$ Problem 37. 32. (1 pt) yunchun/problems/01/intervention\_2/subtraction8.pg -11 - (-6) =Problem 38. 18. (1 pt) yunchun/problems/01/intervention\_2/multiplication2.pg

Problem 39. 45. (1 pt) yunchun/problems/01/intervention\_2/zero8.pg

$$(-7) - (-7) =$$

-3.6 =

Problem 40. 39. (1 pt) yunchun/problems/01/intervention\_2/zero4.pg 0 - (-7) =Problem 41. 29. (1 pt) yunchun/problems/01/intervention\_2/subtraction5.pg (-1) - (-9) =Problem 42. 50. (1 pt) yunchun/problems/01/intervention\_2/zero12\_01.pg Divide or state that the division is undefined. (In this case, enter *undefined*.) Problem 43. 23. (1 pt) yunchun/problems/01/intervention\_2/multiplication7.pg (-2)(-9) =\_\_\_\_ Problem 44. 42. (1 pt) yunchun/problems/01/intervention\_2/zero6.pg (-6) - 0 =Problem 45. 12. (1 pt) yunchun/problems/01/intervention\_2/fraction3.pg Problem 46. 26. (1 pt) yunchun/problems/01/intervention\_2/subtraction2.pg (-4) - 1 =\_\_\_\_ Problem 47. 46. (1 pt) yunchun/problems/01/intervention\_2/zero9.pg 3 · 0= \_\_\_\_ Problem 48. 7. (1 pt) yunchun/problems/01/intervention\_2/addition6.pg 7 + (-1) =\_\_\_\_ Problem 49. 5. (1 pt) yunchun/problems/01/intervention\_2/addition4.pg -3 + (-5) =Problem 50. 28. (1 pt) yunchun/problems/01/intervention\_2/subtraction4.pg -1 - (-3) =

## Powers and order of operations

	Problem 1. 9. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_9.pg
	2 <sup>6</sup> =
	Problem 2. 20. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_20.pg
	$2^2 + 5^2 = $
_	Problem 3. 8. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_8.pg
	$5 + 3 \cdot 7 - (4 + 3 \cdot 4) = $
-	Problem 4. 1. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_1.pg
	$3 + 18 \div 6 = $
-	Problem 5. 18. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_18.pg
	1 <sup>6</sup> =
	Problem 6. 6. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_6.pg
	$2 \cdot 3 \cdot 5 \div 3 - 2 = \underline{\hspace{1cm}}$
-	Problem 7. 11. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_11.pg
	$(-5)^2 = $
-	Problem 8. 2. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_2.pg
	11 · 3 – 17=
-	Problem 9. 4. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_4.pg
	$2 \cdot 4 + (24 - 2) = $
_	Problem 10. 15. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_15.pg
	12 ÷ 3 · 4=
_	Problem 11. 3. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_3.pg
	20 – 8 – 9=
-	Problem 12. 14. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_14.pg
	$[32 \div (8 \div 2)]^2 = $
_	Problem 13. 19. (1 pt) yunchun/problems/01/intervention_3/order_of_operation_19.pg
	· ( L.) (

 $2 + 4 \div 2 \cdot 9 =$ \_\_\_\_

Problem 14. 5. (1 pt) yunchun/problems/01/intervention\_3/order\_of\_operation\_5.pg

$$0 - 5 + 6 =$$
\_\_\_

Problem 15. 13. (1 pt) yunchun/problems/01/intervention\_3/order\_of\_operation\_13.pg

$$(2 \cdot 4)^2 =$$
\_\_\_\_

Problem 16. 16. (1 pt) yunchun/problems/01/intervention\_3/order\_of\_operation\_16.pg

$$13 - 2(5 - 3) =$$

Problem 17. 10. (1 pt) yunchun/problems/01/intervention\_3/order\_of\_operation\_10.pg

$$23^0 =$$
\_\_\_\_

Problem 18. 17. (1 pt) yunchun/problems/01/intervention\_3/order\_of\_operation\_17.pg

$$(17+18+19) \div 3 =$$
\_\_\_\_

Problem 19. 12. (1 pt) yunchun/problems/01/intervention\_3/order\_of\_operation\_12.pg

$$-3^2 =$$

Problem 20. 7. (1 pt) yunchun/problems/01/intervention\_3/order\_of\_operation\_7.pg

$$16 - 0 \div 6 =$$
\_\_\_\_

#### **Basic fractions**

Problem 1. 6. (1 pt) yunchun/problems/01/intervention\_4/power\_1.pg

$$(\frac{3}{4})^4 =$$
\_\_\_\_

Problem 2. 7. (1 pt) yunchun/problems/01/intervention\_4/reduce\_1.pg

Reduce the fraction to lowest terms.

$$\frac{4}{14} =$$
\_\_\_\_

Problem 3. 9. (1 pt) yunchun/problems/01/intervention\_4/subtraction\_2.pg

$$\frac{5}{9} - \frac{1}{3} =$$
\_\_\_\_

Problem 4. 8. (1 pt) yunchun/problems/01/intervention\_4/subtraction\_1.pg

$$\frac{2}{3} - \frac{1}{12} =$$
\_\_\_\_

Problem 5. 10. (1 pt) yunchun/problems/01/intervention\_4/zero\_1.pg

$$\frac{3}{8} \cdot \frac{1}{2} \cdot 0 =$$
\_\_\_\_

Problem 6. 5. (1 pt) yunchun/problems/01/intervention\_4/multiplication\_2.pg

$$\frac{3}{4} \cdot \frac{3}{4} \cdot \frac{3}{4} =$$
\_\_\_\_

Problem 7. 3. (1 pt) yunchun/problems/01/intervention\_4/division\_1.pg

$$\frac{1}{4} \div \frac{4}{5} =$$
\_\_\_\_

Problem 8. 2. (1 pt) yunchun/problems/01/intervention\_4/addition\_and\_subtraction\_1.pg

$$\frac{1}{8} + \frac{1}{12} - \frac{1}{16} =$$
\_\_\_\_

Problem 9. 1. (1 pt) yunchun/problems/01/intervention\_4/addition\_1.pg

$$\frac{1}{5} + \frac{2}{9} =$$
\_\_\_\_

Problem 10. 4. (1 pt) yunchun/problems/01/intervention\_4/multiplication\_1.pg

$$\frac{8}{9} \cdot \frac{3}{8} =$$
\_\_\_\_

#### Primes and mixed numbers

Problem 1. 7. (1 pt) yunchun/problems/01/intervention\_5/multiplication\_1.pg

$$2 \cdot \frac{5}{8} =$$
\_\_\_\_

Problem 2. 3. (1 pt) yunchun/problems/01/intervention\_5/convert\_2.pg

Convert the mixed number to an improper fraction.

$$4\frac{1}{5} =$$
\_\_\_\_

Problem 3. 4. (1 pt) yunchun/problems/01/intervention\_5/division\_1.pg

$$3\frac{1}{3} \div 1\frac{3}{7} =$$
\_\_\_\_

Problem 4. 6. (1 pt) yunchun/problems/01/intervention\_5/lcm\_1.pg

The least common multiple (LCM) of 25 and 35 is \_\_\_\_.

Problem 5. 10. (1 pt) yunchun/problems/01/intervention\_5/subtraction\_1.pg

$$4\frac{2}{5} - 1\frac{5}{8} =$$
\_\_\_\_

Problem 6. 2. (1 pt) yunchun/problems/01/intervention\_5/convert\_1.pg

Convert the improper fraction to a mixed number.

$$\frac{16}{7} =$$
\_\_\_\_

Problem 7. 8. (1 pt) yunchun/problems/01/intervention\_5/multiplication\_2.pg

$$\frac{23}{24} \cdot 16 =$$
\_\_\_\_

Problem 8. 9. (1 pt) yunchun/problems/01/intervention\_5/prime\_factorization1.pg

Find the prime factorization:

$$189 = (\_)^3 \times \_$$

Problem 9. 5. (1 pt) yunchun/problems/01/intervention\_5/gcd1.pg

The greatest common factor (GCF) of 6 and 21 is \_\_\_\_.

Problem 10. 1. (1 pt) yunchun/problems/01/intervention\_5/addition\_1.pg

$$4\frac{5}{6} + 1\frac{5}{9} =$$
\_\_\_\_

## 2015\_sample\_midterm

Problem 1. 1. (2 pts) yunchun/problems/01/intervention_1/subtraction2.pg
1003 – 62=
Problem 2. 2. (2 pts) yunchun/problems/01/intervention_1/multiplication2.pg
202 · 203=
Problem 3. 3. (2 pts) yunchun/problems/01/intervention_3/order_of_operation_10.pg
15 <sup>0</sup> =
Problem 4. 4. (2 pts) yunchun/problems/01/intervention_3/order_of_operation_9.pg
$2^5 = $
Problem 5. 5. (4 pts) yunchun/problems/01/intervention_1/division3.pg
When 121 is divided by 12, the quotient is and the remainder is
Problem 6. 6. (4 pts) yunchun/problems/01/intervention_1/division4.pg
When 8 is divided by 20, the quotient is and the remainder is
Problem 7. 7. (2 pts) yunchun/problems/01/intervention_3/order_of_operation_1.pg
$3 + 15 \div 3 = $
Problem 8. 8. (2 pts) yunchun/problems/01/intervention_3/order_of_operation_2.pg
14 · 2 - 15=
Problem 9. 9. (2 pts) yunchun/problems/01/intervention_3/order_of_operation_3.pg
24 – 9 – 9=
Problem 10. 10. (2 pts) yunchun/problems/01/intervention_3/order_of_operation_4.pg
$4 \cdot 5 + (27 - 3) = $
Problem 11. 11. (2 pts) yunchun/problems/01/intervention_3/order_of_operation_5.pg
0-3+7=
 Problem 12. 12. (2 pts) yunchun/problems/01/intervention_3/order_of_operation_6.pg
$2 \cdot 3 \cdot 4 \div 3 - 2 = \underline{\hspace{2cm}}$
Problem 13. 13. (2 pts) yunchun/problems/01/intervention_3/order_of_operation_13.pg
$(2\cdot 5)^2 = $

Problem 14. 14. (2 pts) yunchun/problems/01/intervention\_3/order\_of\_operation\_7.pg

$$19 - 0 \div 5 =$$

Problem 15. 15. (2 pts) yunchun/problems/01/intervention\_3/order\_of\_operation\_14.pg

$$[12 \div (8 \div 2)]^2 =$$

Problem 16. 16. (2 pts) yunchun/problems/01/intervention\_3/order\_of\_operation\_8.pg

$$3+2\cdot 5-(2+2\cdot 3)=$$
\_\_\_\_

Problem 17. 17. (2 pts) yunchun/problems/01/intervention\_3/order\_of\_operation\_16.pg

$$17 - 3(5 - 3) =$$

Problem 18. 18. (2 pts) yunchun/problems/01/intervention\_3/order\_of\_operation\_15.pg

$$12 \div 3 \cdot 4 =$$

Problem 19. 19. (2 pts) yunchun/problems/01/intervention\_4/multiplication\_1.pg

$$\frac{8}{9} \cdot \frac{3}{8} =$$
\_\_\_\_

Problem 20. 20. (2 pts) yunchun/problems/01/intervention\_4/multiplication\_2.pg

$$\frac{2}{3} \cdot \frac{2}{3} \cdot \frac{2}{3} =$$
\_\_\_\_

Problem 21. 21. (2 pts) yunchun/problems/01/intervention\_4/power\_1.pg

$$(\frac{1}{4})^4 =$$
\_\_\_\_

Problem 22. 22. (2 pts) yunchun/problems/01/intervention\_4/zero\_1.pg

$$\frac{2}{5} \cdot \frac{1}{2} \cdot 0 =$$
\_\_\_\_

Problem 23. 23. (2 pts) yunchun/problems/01/intervention\_5/multiplication\_1.pg

$$3 \cdot \frac{4}{9} =$$
\_\_\_\_

Problem 24. 24. (2 pts) yunchun/problems/01/intervention\_5/multiplication\_2.pg

$$\frac{15}{16} \cdot 8 =$$
\_\_\_\_

Problem 25. 25. (2 pts) yunchun/problems/01/intervention\_5/addition\_1.pg

$$1\frac{1}{3} + 3\frac{5}{8} =$$
\_\_\_\_

Problem 26. 26. (2 pts) yunchun/problems/01/intervention\_4/addition\_and\_subtraction\_1.pg

$$\frac{1}{16} + \frac{1}{24} - \frac{1}{32} =$$
\_\_\_\_

Problem 27. 27. (2 pts) yunchun/problems/01/intervention_5/convert_1.pg
Convert the improper fraction to a mixed number. $\frac{17}{5} = \underline{\hspace{1cm}}$
Problem 28. 28. (2 pts) yunchun/problems/01/intervention_5/convert_2.pg
Convert the mixed number to an improper fraction. $2\frac{2}{5} = $
Problem 29. 29. (4 pts) yunchun/problems/01/intervention_5/prime_factorization1.pg
Find the prime factorization : $56 = (\underline{\hspace{1cm}})^3 \times \underline{\hspace{1cm}}$
Problem 30. 30. (4 pts) yunchun/problems/01/intervention_5/gcd1.pg
The greatest common factor (GCF) of 30 and 40 is
Problem 31. 31. (4 pts) yunchun/problems/01/intervention_5/lcm_1.pg
The least common multiple (LCM) of 10 and 14 is
Problem 32. 32. (2 pts) yunchun/problems/01/intervention_5/subtraction_1.pg
$3\frac{1}{4} - 1\frac{2}{5} = $
Problem 33. 33. (2 pts) yunchun/problems/01/intervention_5/division_1.pg
$4\frac{3}{7} \div 1\frac{5}{8} = $
Problem 34. 34. (2 pts) yunchun/problems/01/intervention_2/addition2.pg
-9+1= <u></u>
Problem 35. 35. (2 pts) yunchun/problems/01/intervention_2/subtraction7.pg
1 – 3=
Problem 36. 36. (2 pts) yunchun/problems/01/intervention_2/subtraction4.pg
-1-(-6)=
Problem 37. 37. (2 pts) yunchun/problems/01/intervention_2/zero4.pg
0 – (–6)=

Problem 38. 38. (2 pts) yunchun/problems/01/intervention\_2/multiplication7.pg

Problem 39. 39. (2 pts) yunchun/problems/01/intervention\_2/subtraction6.pg

Problem 40. 40. (2 pts) yunchun/problems/01/intervention\_2/fraction1.pg

$$\frac{-36}{-4} =$$

Problem 41. 41. (2 pts) yunchun/problems/01/intervention\_2/fraction3.pg

$$\frac{16}{-4} =$$
\_\_\_\_

Problem 42. 42. (2 pts) yunchun/problems/01/intervention\_2/zero12.pg

Divide or state that the division is undefined. (In this case, enter *undefined*.)

$$\frac{0}{-13} =$$
\_\_\_\_\_

Problem 43. 43. (4 pts) cunyLibrary/MTH05/Homework/05-Exponents\_and\_Order\_of\_Operations/1.1\_exponents.pg Evaluate each expression:

a) 
$$(-7)^2 =$$
\_\_\_\_\_  
b)  $-7^2 =$ \_\_\_\_

$$(b) -7^2 =$$

Problem 44. 44. (2 pts) yunchun/problems/01/intervention\_2/addition5.pg

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