

2017-2018 1st Nine Weeks Math Study Guide

5.NBT.1 Be able to understand place value for whole numbers and decimal numbers.

1. Look at the number 822,194. What two values does the digit 2 have in this number?

2,000 and 20,000

2. Look at the number 36,674,820. Is the 6 in the hundred thousands place 10x or 1/10 of the value of the 6 in the millions place? The 6 in the hundred thousands place is 1/10x the value of the 6 in the millions place.

5.NBT.3a Read and write decimals to the thousandths place.

3. Write the following numbers in written and expanded form.

3,459,283	34.192
Three million four hundred fifty nine thousand two hundred eighty three	Thirty four and one hundred ninety two thousandths
$3,000,000 + 400,000 + 50,000 + 9,000 + 200 + 80 + 3$	$30 + 4 + 0.1 + 0.09 + 0.002$
$(3 \times 1,000,000) + (4 \times 100,000) + (5 \times 10,000) + (9 \times 1,000) + (2 \times 100) + (8 \times 10) + (3 \times 1)$	$(3 \times 10) + (4 \times 1) + (1 \times 1/10) + (9 \times 1/100) + (2 \times 1/1000)$

4. Write the following number in standard form.

One million, two hundred forty seven thousand, nine hundred eighty one and fifty three hundredths

1,247,981.53

5.NBT.3b. Be able to compare and order decimals to the thousandths place.

5. Order the decimals 17.560; 17.065; 17.056

In order from least to greatest: 17.056, 17.065, 17.560

6. Compare the decimal numbers 878.787 **<** 878.878

5.NBT.2 Know the effect on the product when the number is multiplied by powers of 10.

Name: _____

7. $1 \times 0.53 = 0.53$
 $10 \times 0.53 = \underline{5.3}$
 $100 \times 0.53 = \underline{53.}$
 $1000 \times 0.53 = 530$

8. Multiply the number by 10, 100, 1000

$$0.7832$$
$$10 \times 0.7832 = \underline{7.832}$$
$$100 \times 0.7832 = \underline{78.32}$$
$$1000 \times 0.7832 = \underline{783.2}$$

5.NBT.2 Be able to use exponents to represent powers of 10.

9. Evaluate: $10^2 = 100$ $10^3 = 1,000$ $10^4 = 10,000$ $10^5 = 100,000$

5.NBT.5 Multiply: know how to multiply whole numbers by whole numbers, whole numbers by decimals, and decimals by decimals

10. $467 \times 35 = 16,345$

11. $332 \times 68 = 22,576$

5.NBT.6 Division: know how to divide whole numbers by whole numbers, whole numbers by decimals, and decimals by decimals

12. $225 \div 25 = 9$

13. $9716 \div 28 = 347$

14. $639 \div 3 = 213$

5.OA.1 Know when to use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols (order of operations).

15. $8 + (9 \times 12) = 116$

16. $(4+5) \times (2 \times 4) = 72$

17. $\{5 + [2 \times (15 \div 3)] - 4\} \times 3 = 33$

5.OA.2 Know how to write simple expressions without evaluating them.

Name: _____

Write the expression.

18. Joy ate 3 of the 12 cookies and then baked 6 more.

$$(12 - 3) + 6$$

19. T.J. got on the elevator on the 7th floor. He rode down 5 floors on the elevator and then rode up 3 floors.

$$(7 - 5) + 3$$

5.NBT.4 Rounding decimals

20. Round **55.987** to the following:

Tenths = 56.000

hundredths = 55.990

thousandths = 55.980

tens = 60.000

5.NBT.7 Adding, subtracting, multiplying, and dividing decimals to the hundredths place

21. $62.42 + 24.23 = \underline{86.65}$

22. $3745.2 - 8.84 = \underline{365.66}$

5.NBT.2 Know the effect on the product when the number is multiplied by powers of 10.

Name: _____

23. Mrs. Clarkson wrote two expressions on the board:

$$4.325 \times 10^3$$

$$4.325 \div 10^3$$

- A. Find the value of the expression 4.325×10^3 . Explain how you found your answer.

The value of the expression is 4325. I found my answer by simply moving the decimal three places to the right. I knew to move my decimal to the right because I was multiplying. I moved my decimal three times because the exponent told me how many times to move my decimal to the right. I am able to do this shortcut because each place value is a power of ten (i.e. tens, hundred, thousands).

- B. Find the value of the expression $4.325 \div 10^3$. Explain how you found your answer.

The value of the expression is 0.004325. I found my answer by simply moving the decimal three places to the left. I knew to move my decimal to the left because I was dividing. I moved my decimal three times because the exponent told me how many times to move my decimal to the left. I am able to do this shortcut because each place value is a power of ten (i.e. tens, hundred, thousands).