

# 5.NBT.1 I can understand the value of digits in a large number.

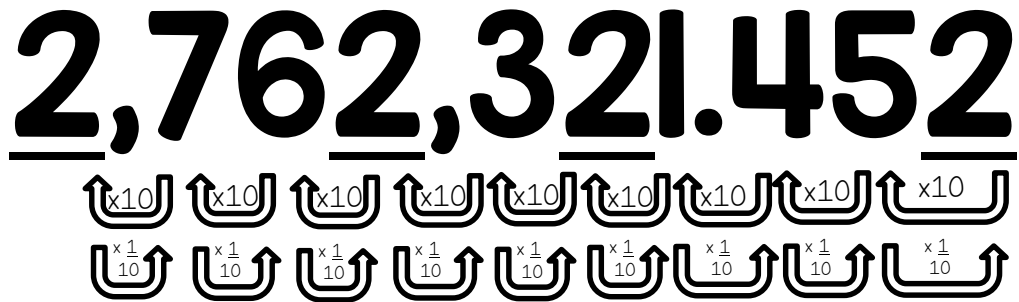
Tell the value of each two in the large number.

Value:

Value:

Value:

Value:



A digit is ten times more than the place to the right, and one tenth less than the place to the left.

5,305

42.045

How much larger is the five in the thousands place than the five in the ones place?

How much larger is the four in the tens place than the four in the hundredths place?

How much smaller is the five in the ones place than the five in the thousands place?

How much smaller is the four in the hundredths place than the four in the tens place?

# 5.NBT.2 I can multiply and divide by powers of ten.

Tell the value of each number with an exponent.

$10^5$	
$10^3$	
$10^8$	
$10^2$	
$10^6$	

Do you notice a pattern?

$2.678 \times 10^3$	$8,549.3 \div 10^3$	$.328 \times 100$

$7,581 \times 10^5$	$16,171.9 \div 10^4$	$5.259 \times 1,000$

5.NBT.3 I can compare decimals to the thousandths place.

>, <, =

tenths  
hundredths  
thousandths

**945.683**

.678		.687
1.059		1.59
3.46		3.604
3.5		3.50
9.01		91.1
2.201		2.121

5.NBT.3 I can represent decimals in different forms.

tenths  
hundredths  
thousandths

**.683**

six hundred eighty-three thousandths

6x.1 +  
8x.01 +  
3x.001

Decimal (Standard)	Word/Written Form	Expanded Form
.527		
		3x.1 + 4x.01 + 5x.001
	eighty-nine thousandths	

# 5.NBT.4 I can round decimals to any place.

Underline the place you are being asked to round to.

Then, look to the **right**.

If it's four or less, let it rest. (Round down, underlined number *stays the same*.)

If it's five or more, raise the score. (Round up, underlined number *increases by one*.)

Everything after the underlined number becomes a 0. (With decimals, the zeros can just drop off.)

Decimal	Rounded to the Nearest Hundredth	Rounded to the Nearest Tenth
.675		
.325		
.452		
.491		
.593		
.645		
.447		

5.NBT.5 I can multiply large numbers using the standard algorithm.

$$\begin{array}{r} \begin{array}{cccccc} 1 & 2 & 1 & & & \\ & 1 & 1 & & & \\ 1 & 3 & 2 & & & \\ 2, & 3 & 8 & 5 & & \end{array} \\ \times \quad \begin{array}{ccc} 3 & 2 & 4 \end{array} \\ \hline \begin{array}{cccccc} 9 & 5 & 4 & 0 & & \\ 4 & 7 & 7 & 0 & \text{○} & \\ + & 7 & 1 & 5 & 5 & \text{○} \text{○} \\ \hline 7 & 7 & 2 & , & 7 & 4 & 0 \end{array} \end{array}$$

Be sure to leave space above your problem for any carrying.

Each time you multiply by a different digit from the factor, you have to write your product on a new line, and indent it one space to the left.

You can place zeros as place fillers.

Solve this problem on a separate page. Be sure to write your problem neatly, keeping all columns lined up. Give yourself plenty of space above and below.

$$\begin{array}{r} 1,487 \\ \times 265 \\ \hline \end{array}$$

5.NBT.5 I can multiply large numbers using the standard algorithm.

Be sure to leave space above your problem for any carrying.

$$\begin{array}{r}
 \begin{array}{ccccccc}
 & & 1 & 2 & 1 & & \\
 & & & 1 & 1 & 1 & \\
 & 1 & 3 & 2 & & & \\
 2, & 3 & 8 & 5 & & & \\
 \times & 3 & 2 & 4 & & & \\
 \hline
 & & 9 & 5 & 4 & 0 & \\
 & 4 & 7 & 7 & 0 & \bigcirc & \bigcirc \\
 + & 7 & 1 & 5 & 5 & \bigcirc & \bigcirc \\
 \hline
 7 & 7 & 2 & , & 7 & 4 & 0
 \end{array}
 \end{array}$$

Each time you multiply by a different digit from the factor, you have to write your product on a new line, and indent it one space to the left.

You can place zeros as place fillers.

$$\begin{array}{r} 1,487 \\ \times 265 \\ \hline \end{array}$$

Solve this problem on a separate page. Be sure to write your problem neatly, keeping all columns lined up. Give yourself plenty of space above and below.

5.NBT.6 I can divide a four-digit number by a two-digit number.

quotient

remainder

divisor

dividend

0 1 5 7

R I

15

2, 3 5 6

-1 5

0 8 5

-7 5

1 0 6

-1 0 5

|

Be sure to leave space below the problem to work out your math.

Solve this problem on a separate page. Be sure to write your problem neatly, keeping all columns lined up. Give yourself plenty of space below.

If you don't know how many times the divisor goes into a number, you can do some multiplication on the side. For example, if you weren't sure how many times 15 went into 85, you could guess and check.

12

5,798

5.NBT.6 I can divide a four-digit number by a two-digit number.

quotient

remainder

divisor

dividend

0 157

R 1

15

2, 3 5 6

-1 5

0 8 5

-7 5

1 0 6

-1 0 5

1

Be sure to leave space below the problem to work out your math.

Solve this problem on a separate page. Be sure to write your problem neatly, keeping all columns lined up. Give yourself plenty of space below.

If you don't know how many times the divisor goes into a number, you can do some multiplication on the side. For example, if you weren't sure how many times 15 went into 85, you could guess and check.

12

5,798



5.NBT.7 I can add decimals using what I know about place value.

$$5.789 + 3.62$$

It is important to keep the places lined up. You should rewrite any horizontally written problems vertically. Check and make sure your decimals line up.

$$\begin{array}{r} 5.789 \\ + 3.620 \\ \hline \end{array}$$

$$\begin{array}{r} 2.413 \\ + 5.218 \\ \hline \end{array}$$

$$6.3 + 5.752$$

5.NBT.7 I can subtract decimals using what I know about place value.

$$9.749 - 2.63$$

Check and make sure your decimals line up. Add zero fillers **after** the decimal if you need to.

$$\begin{array}{r} 9.749 \\ - 2.630 \\ \hline \end{array}$$

$$\begin{array}{r} 9.403 \\ - 5.268 \\ \hline \end{array}$$

$$8.3 - 4.792$$

5.NBT.7 I can multiply decimals using what I know about place value.

$$\begin{array}{r} 5.7 \\ \times 3.6 \\ \hline 342 \\ 1710 \\ \hline 20.52 \end{array}$$

Two  
Total  
Decimal  
Places

When you multiply decimals, simply multiply as if the decimals were not there. After you have your product, count up how many decimal places you had total. Then move your decimal that many places in from the right.

$$2.4 \times 5.21$$

$$3.3 \times 7.21$$

5.NBT.7 I can divide decimals by a whole number.

When dividing a decimal by a whole number, treat it as long division and move the decimal straight up to the answer key. Keep your places lined up neatly so the decimal is in the correct spot.

$$\begin{array}{r} . \\ 2 \overline{) 5.78} \end{array}$$

$$\begin{array}{r} . \\ 4 \overline{) 1.28} \end{array}$$

5.NBT.7 I can divide a whole number by a decimal.

Multiply by powers of ten to move the decimal out of the number. Make sure you do the same thing to dividend.

$$.21 \overline{) 63}$$

$$.33 \overline{) 99}$$

Multiply by  $10^2$  to get rid of this decimal. Then, multiply 63 by one hundred also.

5.NBT.7 I can divide a decimal by a decimal.

Multiply by powers of ten to move the decimal out of the number. Make sure you do the same thing to dividend and divisor. Use the largest number of decimal places when multiplying. In the examples below, the divisors only have one decimal place, but the dividends have two. Therefore, you will need to multiply by  $10^2$  to remove all the decimals.

$$.2 \overline{) 6.78}$$

$$.4 \overline{) 2.48}$$