Name _____ Date _____

1. Compare the values of each 7 in the number 771,548,029. Use a picture, numbers, or words to explain.

2. Compare using >, <, or =. Write your answer inside the circle.

   a. 3 × 100,000 + 4 × 1,000 ◯ 4 × 10,000 + 2 × 100,000 + 1 × 1,000

   b. 383,224 ◯ 383,224

   c. 1 billion ◯ 4 hundred millions + 6 hundred millions

   d. 709 thousands − 1 hundred thousand ◯ 708 thousands

3. Norfolk, VA, has a population of 242,628 people. Baltimore, MD, has 376,865 more people than Norfolk. Charleston, SC, has 496,804 less people than Baltimore.
   a. What is the total population of all three cities? Draw a strip diagram to model the word problem. Then, solve the problem.

   b. Round to the nearest hundred thousand to check the reasonableness of your answer for the population of Charleston, SC.

   c. Record each city's population in numbers, in words, and in expanded form.

d. Compare the population of Norfolk and Charleston using >, <, or =.

e. Eddie lives in Fredericksburg, VA, which has a population of 24,286. He says that Norfolk's population is about 10 times as large as Fredericksburg's population. Explain Eddie's thinking.

f. The total population for three cities, Aytown, Beeville and Seeburg, is 36,524. Aytown's population is 5,417. Beeville has a population of 7,826. Which equation below could be used to find, *p*, the population of Seeburg?

A. $p = 36{,}524 - 7{,}826 - 5{,}417$

B. $p = 36{,}524 + 7{,}826 + 5{,}417$

C. $p = 7{,}826 - 5{,}417$

D. $p = 7{,}826 + 5{,}417$

End-of-Module Assessment Task Standards Addressed	Topics A-F

Number and Operations

The student is expected to:

4.4A add and subtract whole numbers and decimals to the hundredths place using the standard algorithm;

4.4G round to the nearest 10, 100, or 1,000 or use compatible numbers to estimate solutions involving whole numbers.

Algebraic Reasoning

The student is expected to:

4.2A interpret the value of each place-value position as 10 times the position to the right and as one-tenth of the value of the place to its left;

4.2B represent the value of the digit in whole numbers through 1,000,000,000 and decimals to the hundredths using expanded notation and numerals;

4.2C compare and order whole numbers to 1,000,000,000 and represent comparisons using the symbols >, <, or =;

4.2D round whole numbers to a given place value through the hundred thousands place.

Algebraic Reasoning

The student is expected to:

4.5A represent multi-step problems involving the four operations with whole numbers using strip diagrams and equations with a letter standing for the unknown quantity.

Evaluating Student Learning Outcomes

A Progression Toward Mastery is provided to describe steps that illuminate the gradually increasing understandings that students develop *on their way to proficiency.* In this chart, this progress is presented from left (Step 1) to right (Step 4). The learning goal for students is to achieve Step 4 mastery. These steps are meant to help teachers and students identify and celebrate what the students CAN do now and what they need to work on next.

A Progression Toward Mastery				
Assessment Task Item and Standards Addressed	**STEP 1 Little evidence of reasoning without a correct answer.** **(1 Point)**	**STEP 2 Evidence of some reasoning without a correct answer.** **(2 Points)**	**STEP 3 Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer.** **(3 Points)**	**STEP 4 Evidence of solid reasoning with a correct answer.** **(4 Points)**
1 **4.2A**	The student provides limited reasoning about the relationship of the values of the 7s.	The student can reason about the relationship between the values of the 7s but does not show a supporting picture or numbers.	The student is able to reason about the relationship of the 7s, but her reasoning does not fully support her picture or numbers.	The student correctly reasons the 7 in the hundred millions place is 10 times the value of the 7 in the ten millions place, using a picture, numbers, or words to explain.
2 **4.2B** **4.2C** **4.4A**	The student correctly answers less than two of the four parts.	The student correctly answers two of the four parts.	The student correctly answers three of the four parts.	The student correctly answers all four parts: a. > b. > c. = d. <
3 **4.2A** **4.2B** **4.2C** **4.2D** **4.4A** **4.4G** **4.5A**	The student correctly answers less than two of the five parts.	The student correctly answers two of the five parts.	The student answers four or five of the five parts correctly but with only some reasoning in Parts (b) and (e). OR The student answers three or four of the parts correctly with solid reasoning for all parts.	The student correctly answers all five parts: a. 984,810. b. The population of Baltimore is about 600,000. The population of Charleston is about 500,000 less than Baltimore, or 100,000. Therefore, 122,689 is a reasonable answer. c. Charleston, SC: One hundred twenty-two thousand, six hundred eighty-nine. 100,000 + 20,000 + 2,000 + 600 + 80 + 9.

A Progression Toward Mastery				
				Baltimore, MD: Six hundred nineteen thousand, four hundred ninety-three. 600,000 + 10,000 + 9,000 + 400 + 90 + 3. Norfolk, VA: Two hundred forty-two thousand, six hundred twenty-eight. 200,000 + 40,000 + 2,000 + 600 + 20 + 8. d. Norfolk: 242,628 > Charleston, 122,689. e. Eddie is correct to think that Norfolk's population is about 10 times that of Fredericksburg's because Norfolk's population is about 240,000, while Fredericksburg's is about 24,000. 240,000 is ten times as many as 24,000.
4 **4.5A**	Student chooses D. Shows little of understanding	Student chooses B Understands that total population is part of solution but does not see that subtraction is needed	Student chooses C understands that subtraction is necessary to find missing part, but fails to include total	Student chooses A.

Name _____ Date _____

1. Compare the values of each 7 in the number 771,548,029. Use a picture, numbers, or words to explain.

The 7 in the hundred millions place is ten times the value of the 7 in the ten millions place.

10 x 70,000,000 = 700,000,000

hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones
7	7	1	5	4	8	0	2	9
7	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0
		1	0	0	0	0	0	0
			5	0	0	0	0	0
				4	0	0	0	0
					8	0	0	0
						0	0	0
							2	0
								9

2. Compare using >, <, or =. Write your answer inside the circle.

a. 3 × 100,000 + 4 × 1,000 > 4 × 10,000 + 2 × 100,000 + 1 × 1,000

3 hundred thousands

2 hundred thousands

b. 383,224 > 383,224

38 ten thousands

33 ten thousands

c. 1 billion = 4 hundred millions + 6 hundred millions

10 hundred millions

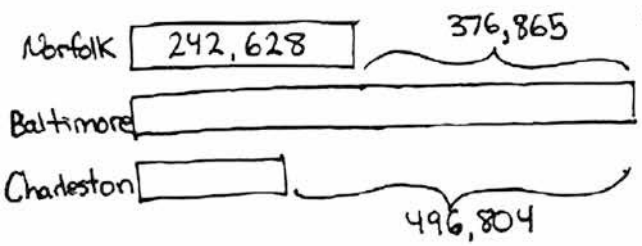
d. 709 thousands – 1 hundred thousand < 708 thousands

709 – 100 = 609

609 thousands

3. Norfolk, VA has a population of 242,628 people. Baltimore, MD has 376,865 more people than Norfolk. Charleston, SC has 496,804 less people than Baltimore.

   a. What is the total population of all three cities? Draw a strip diagram to model the word problem. Then solve the problem.



Baltimore
242,628
+ 376,865
619,493

Charleston
5 18 14 8 13
~~619,493~~
− 496,804
122,689

242,628
619,493
+ 122,689
~~+ 22~~
984,810

?

The total population of all three cities is 984,810.

   b. Round to the nearest hundred thousand to check the reasonableness of your answer for the population of Charleston, SC.

Baltimore's population rounded to the nearest hundred thousand is 600,000 Charleston's population is about 500,000 less than Baltimore's population 600,000 − 500,000 = 100,000. The answer of 122,689 for the population of Charleston is reasonable because 122,689 rounded to the nearest hundred thousand is 100,000.

   c. Record each city's population in numbers, in words, and in expanded form.

Baltimore: 619,493 Six hundred nineteen thousand, four hundred ninety-three
600,000 + 10,000 + 9,000 + 400 + 90 + 3

Norfolk: 242,628 two hundred forty-two thousand, six hundred twenty-eight
200,000 + 40,000 + 2,000 + 600 + 20 + 8

Charleston: 122,689 one hundred twenty-two thousand, six hundred eighty-nine
100,000 + 20,000 + 2,000 + 600 + 80 + 9

   d. Compare the population of Norfolk and Charleston using >, <, or =.

Norfolk Charleston
242,628 > 122,689

   e. Eddie lives in Fredericksburg, VA, which has a population of 24,286. He says that Norfolk's population is about 10 times as large as Fredericksburg's population. Explain Eddie's thinking.

Eddie's thinking is correct because Norfolk's population is 242,628 which can be rounded to 240,000. Fredericksburg's population can be rounded to 24,000. 240 thousands is ten times as large as 24 thousands.

H Th.	T Th.	Th.	H	T	O
	2	4	0	0	0
2	4	0	0	0	0

f. The total population for three cities, Aytown, Beeville and Seeburg, is 36,524. Aytown's population is 5,417. Beeville has a population of 7,826. Which equation below could be used to find, *p*, the population of Seeburg?

A. $p = 36{,}524 - 7{,}826 - 5{,}417$

B. $p = 36{,}524 + 7{,}826 + 5{,}417$

C. $p = 7826 - 5{,}417$

D. $p = 7826 + 5{,}417$