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| **4th Grade Math** | |
| **Standard** | **3.0 Items** |
| **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 | **4.2B/3.0 Option 1:**  Student 1: 56 thousands + 17 tens + 83 tenths    Student 2: 50,000 + 6,000 + 100 + 70 + 0.80 + 0.03    Student 3: 50 ten thousands + 6 thousands + 1 ten + 7 ones + 0.8 + 0.03    Three students wrote the number 56,017.83. Which students wrote correct answers?    A All three students were correct.    B Only Student 3 was correct.    C Both Student 1 and Student 2 were correct.    D None of the students were correct.  **4.2B/3.0 Option 2:**      Which ocean trench contains a 3 with a value of 30,000, a 7 with a value of 7 hundreds, and zero tens? |
| **2.0 Items** |
| 1. Write 547,238 in expanded notation.   2. Write (3 x 100,000) + (5 x 10,000) + (2 x 10) + (9 x 1) in standard form.  3. Which number represents 300 + 40 + 3 + 0.05   1. 304.05 2. 340.50 3. 343.5 4. 343.05   4. Which number represents  (8 x 10,000) + (1 x 10,000) + (3 x 100) + (5 x 1) + (3 x 0.1)   1. 8135.3 2. 81,305.3 3. 81,350.3 4. 81,305.03   5. A student represented 427.19 incorrectly.  6. Circle the students mistakes and represent the number correctly.   1. 400 + 20 + 7 + 0.01 + 0.09   b. (4 x 100) + (2 x 10) + (1 x 0.1) + (9 x 0.1)  7. Compare the values of each 5 in the number 552,298. Use a picture, numbers, or words to explain.  8. Round 139,999 to the nearest hundred thousands place.  **Use the table below to answer the questions**.  **Baseball Game Attendance**   |  |  | | --- | --- | | **Game** | **Number of People** | | **1** | **45,753** | | **2** | **42,250** | | **3** | **43,160** | | **4** | **41,779** |   9. Record the attendance for Game 2. Explain how the value of the 2 in the thousands place compares to the value of the 2 in the hundreds place.  10. Round the Game 4 attendance to the nearest thousand.  11. Which correctly shows the numbers in order from least to greatest?   1. 45,753; 43,160; 42,250; 41,779 2. 42,250; 43,160; 41,779; 45,753 3. 41,779; 42,250; 43,160; 45,753 4. 43,160; 45,753; 41,779, 42,250   12. Compare using >, <, or =. Write your answer inside the circle.     1. 234 thousands + 7 ten thousands (circle) 241,000 2. 4 hundred thousands – 2 thousands (circle) 200,000   13. Compare using >, <, or =. Write your answer inside the circle.   1. (insert picture of 4.03) (insert circle picture) (insert picture of 4.30) 2. (insert picture of 2.81) (insert circle picture) (insert picture of 2.18) |
| **Standard** | **3.0 Items** |
| **4.4A** add and subtract whole numbers ~~and decimals to the hundredths place~~ using the standard algorithm | **4.4A/3.0**   1. Find the sum of the following numbers: 145,936 + 610,348 using standard algorithm.   B. Find the difference between the following numbers: 713,046 - 552,163 using the standard algorithm. |
| **2.0 Items** |
| 1. Find the sum of the following numbers: 34,923 + 302,994 using standard algorithm.   2. Find the difference between the following numbers: 201,361 - 51,047 using the standard algorithm.  3. Select a strategy or tool to determine the answer for the following numbers: 2,504 + 1,462  4. Select a strategy or tool to determine the answer for the following numbers: 5,227 - 3,904 using the standard algorithm.  5. Write a new expression using compatible numbers for the following problems:   1. 523 + 602 2. 922 + 374 3. 793 - 241 4. 1,015 - 335 |
| **Standard** | **3.0 Items** |
| **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 | **4.5A/3.0:**  **Option 1:**   1. Write an equation for *d* to represent the situation shown in the strip diagram below.      1. Draw a strip diagram to represent the following equation:   345 + 127 + *p* = 771.  **Option 2:**   1. Write an equation for *y* to represent the situation shown in the strip diagram below.      1. Draw a strip diagram to represent the following equation:   35 x 4 ➗ .2. |
| **2.0 Items** |
| 1. Write an equation for the strip diagram.     Write an equation for *r*  to represent the situation shown in the strip diagram below.    2. Write an equation for *j*  to represent the situation shown in the strip diagram below.  .    3. Draw a strip diagram to represent this equation.    4. Draw a strip diagram to represent this equation.  *s* = (2 x 6) – 4  5. Write a multiplication and a division number sentence to best represent this array.    6. Represent 13 x13 with an array.  7. Represent 38 x 14 with an area model.  8. Write the equation for this area model.    9. Draw an array or area model to represent 96 ÷ 8.  10. Draw an area model to represent 225 ÷ 5.  11. Which strip diagram correctly represents the following equation?  (110 - 30) ÷ 4 |
| **Standard** | **3.0 Items** |
| **4.5B** represent problems using an input-output table and numerical expressions to generate a number pattern that follows a given rule representing the relationship of the values in the resulting sequence and their position in the sequence | **4.5B/3.0**  **Use the information from the equation below to answer A-C.**  Jamal’s age - 9 = Madison’s age   1. Which input-output table matches Jamal’s rule?   B. If Jamal is 54 years old, how old will Madison be?  C. Write a new expression to show the relationship Madison’s age in relation to Jamal’s age?  D. Use the input-output machine to complete the number pattern for the first five numbers in a sequence..  Input  Output  x 3  \_\_\_\_\_\_, \_\_\_\_\_\_, \_\_\_\_\_\_, \_\_\_\_\_\_, \_\_\_\_\_\_ |
| **2.0 Items** |
| 1. The rule for the table below is   *position number times five equals the sequence*. Complete the table below to show the process and values in this sequence.  (can be reworded if needed).    2. Look at the following table.    3. Write a numerical pattern to match the rule in the table.  4. What numerical expression would you use to find the value of the 16th position?    8  8  Complete the table with the following rule:  Output - 8 = Input   |  |  | | --- | --- | | **Input** | **Output** | | 5 | 13 | | 6 |  | |  | 15 | |  | 20 | | 15 |  | |