Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_

**10.7C Adding and Subtracting In Scientific Notation\_Classwork**

*Objective: Apply knowledge about power rules to adding and subtracting numbers in scientific notation. CCSS: 8.EE.4*

*HW: (10.7C) page 452 #3 – 12 ALL (copy problem, show work, check solutions on p. A41)*

Video: <https://www.youtube.com/watch?v=p0zVNTko7z4>

Convert to Scientific Notation:

If you move to the \_\_\_\_\_\_\_\_\_\_\_\_, then it is a NEGATIVE exponent.

If you move to the \_\_\_\_\_\_\_\_\_\_\_\_, then it is a POSITIVE exponent.

*Write each problem in scientific notation if necessary.*

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| 1. 139.45 x 103   It is important to check your answer. | 1. .000945 x 10-4 | 1. 9.45 x 105 |

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| **Adding Subtracting Numbers in Scientific Notation:**   1. When adding or subtracting numbers in scientific notation, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. If it is not the same exponents then you need to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   1. Line up the decimals \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. 2. Write in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Make sure the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |

*Round factor to the nearest hundredths*

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| **Example 1: Adding With Same Exponents**  (9.45 x 103) + (6.11 x 103) | **Example 2: Subtracting With Same Exponents**  (8.96 x 107) – (3.41 x 107) |
| **YOU TRY 1**  (7.45 x 102) + (6.11 x 102) | **YOU TRY 2**  (1.45 x 10-5) – (1.11 x 10-5) |

IF you ADD an exponent, then you move to the \_\_\_\_\_\_\_\_\_\_.

It you SUBTRACT an exponent, then you move to the \_\_\_\_\_\_\_\_\_\_\_.

*Round factor to the nearest hundredths*

|  |  |
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| **Example 3: Adding With Different Exponents**  (2.46 x 106)+ (3.4 x 103) | **Example 4: Subtracting With Different Exponents**  (5.762 x 103)– (2.65 x 10-1) |
| **Example 5: Adding With Different Exponents**  (4.12 x 106) + (3.94 x 104) | **Example 6: Subtracting With Different Exponents**  (9.23 x 10-3) – (2.56 x 10-5) |
| **YOU TRY 3**  (1.2 x 102) + (3.94 x 103) | **YOU TRY 4**  (6.12 x 10-3) + (8.94 x 10-2) |



