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

**10.1A NOTES – Basic Exponents**

|  |
| --- |
| Does -42 = 42 = (-4)2 = - (42)? **Show and explain how you know.** (HINT: Evaluate each expression. Indicate which ones are equivalent and which ones are not equivalent. Explain how you know this.) |
| **CLAIM** (Your answer): **Yes No** (circle one) all 4 expressions **are equal are not equal** (circle one) |
| **EVIDENCE** (Show your work below and then indicate which expressions are equivalent)

|  |  |  |  |
| --- | --- | --- | --- |
| -42 | 42 | (-4)2 | - (42) |
|  |  |  |  |

 |
| **REASONING** (Summarize your findings in a few complete sentences that prove your solutions. Be sure to include how the negative and parentheses play a role in the final answer) |

Follow up. What if the exponent is odd?

|  |  |
| --- | --- |
| Evaluate (-3)3 | Evaluate -33 |
| Evaluate (-2)3 | Evaluate (-2)3 |
| What conclusions can you make about evaluating powers with odd numbered exponents? |

**BACK 🡪**

**REVIEW**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| For the expression 63, identify the power, base and exponent. 63 POWER = \_\_\_\_\_\_\_ BASE = \_\_\_\_\_\_\_\_ EXPONENT = \_\_\_\_\_\_\_\_  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++**YOU TRY:** create your own problem with exponential form, expanded form, and standard form

|  |  |  |
| --- | --- | --- |
| Exponential form | Expanded from | Standard form |
|  |  |  |

 |

Evaluate

|  |  |
| --- | --- |
| 1. - 52
 | 1. (-5)2
 |

Evaluate

|  |  |
| --- | --- |
| 1. 1 - 52
 | 1. 1 + (-5)2
 |

HW: (10.1A) p. 414 #1, 2, 11 – 16 (do in BIM (bigideasmath.com))

If you must do on paper…COPY DOWN THE PROBLEM & SHOW YOUR WORK (You do not have to show work on #3-9). CHECK YOUR ODD ANSWERS. PLACE “√” NEXT TO CORRECT ANSWERS. CIRCLE ANSWERS AND WRITE “?” IF IT IS INCORRECT AND YOU CANNOT FIND YOUR MISTAKE

Objective: Draw conclusions about properties of integer exponents CCSS: 8.EE.1