Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_

Order of Operations and Justifications with Properties Homework

Directions: Complete the steps to solve the following expressions and justify each step.

1)

|  |  |
| --- | --- |
| -3(2x + 4) +  | Given |
| -6x – 12 +  |  |
|  | Substitution |
| -6x + 0 |  |
|  |  |

2)

|  |  |
| --- | --- |
| (-9 + 2) + 9 | Given |
| (2 + -9) + 9 |  |
|  | Associative Property of Addition |
|  | Additive Inverse |
|  |  |

3)

|  |  |
| --- | --- |
| ()6x | Given |
| 6x() |  |
|  | Substitution |
| 6x(1) |  |
|  |  |

Name \_\_\_\_\_\_\_KEY\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_

Order of Operations and Justifications with Properties Homework

Directions: Complete the steps to solve the following expressions and justify each step.

1)

|  |  |
| --- | --- |
| -3(2x + 4) +  | Given |
| -6x – 12 +  | Distributive |
| -6x -12 + 12 | Substitution |
| -6x + 0 | Additive Inverse |
| -6x | Additive Identity |

2)

|  |  |
| --- | --- |
| (-9 + 2) + 9 | Given |
| (2 + -9) + 9 | Commutative Property of Addition |
| 2 + (-9 + 9) | Associative Property of Addition |
| 2 + 0 | Additive Inverse |
| 2 | Additive Identity |

3)

|  |  |
| --- | --- |
| ()6x | Given |
| 6x() | Commutative Property of Multiplication |
| 6x() | Substitution |
| 6x(1) | Multiplicative Inverse |
| 6x | Multiplicative Identity |