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

**3.2B Factoring Algebraic Expressions\_Classwork**

*Objective: students will factor algebraic expressions by reversing the distributive property.*

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| **WARM-UP**Use distributive property to simplify the expression

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| 1. $2(3x-4m+1)$
 | 1. $\left(3x-1\right)2-3$
 | 1. $-3x(2y+a)$
 |

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| **LIST OF PRIME NUMBERS:** |
| Addition undoes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Subtraction undoes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Multiplication undoes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Division undoes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Distributive property undoes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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| **TERM** | **DEFINTION** | **EXAMPLE** |
| Factor (as a noun) | A number that is multiplied by another number to get a product. | List the factors of 18 and 12. |
| Factor (as a verb) | When you factor an expression, you reverse the distributive property. The number on the outside of the parentheses is the GCF. | Factor: 18n +12\_\_\_\_\_\_ (\_\_\_\_\_\_+\_\_\_\_\_\_\_)1. Find the GCF of the numbers.
2. Find the GCF of the variables.
3. The GCF’s go on the outside.
4. The leftovers go on the inside.
 |
| Greatest Common Factor | The largest factors that is shared by two or more numbers. | The GCF of 18 and 12 is \_\_\_\_\_\_\_\_\_\_\_. |
| Factored Form | An expression in factored form has the GCF on the outside of the parentheses, and a sum or difference on the inside. | The factored form of 18n + 12 is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  |

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| **EXAMPLE 1:** Factor 24 – 18 using the GCF. Use distributive property to check answer: |
| **EXAMPLE 2:** Factor out -95n + 45 using the GCF. Use distributive property to check answer: |
| 1. Factor -21x – 6 using the GCF.
 | 1. Factor out 36m + 9 using the GCF.
 |
| 1. Factor 33m – 11 using the GCF.
 | 1. Factor out 108n + 24 using the GCF.
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| 1. Factor -35g – 15 using the GCF.
 | 1. Factor out -2m + 5 using the GCF.
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