

Name \_\_\_\_\_

Date \_\_\_\_\_

**FACTOR by GROUPING COLORING ACTIVITY**  
 Directions: Factor each polynomial. Circle the color of your answer choice and color the corresponding problem numbers on the coloring sheet.

<b>1</b>	$20x^3 - 12x^2 + 15x - 9$	$(4x^2 + 3)(5x - 3)$ LIGHT BLUE	$(x^2 + 3)(5x - 3)$ GREEN	$(4x^2 - 3)(5x + 3)$ BROWN	$(4x^2 + 3)(5x + 3)$ GRAY
<b>2</b>	$x^3 + 3x^2 + 5x + 15$	$(x^2 + 3)(x + 5)$ MAROON	$(x + 5)(x + 3)$ AQUA	$(x^2 + 5)(x + 3)$ YELLOW	$(x^2 + 5)(x^2 + 3)$ DARK GREEN
<b>3</b>	$12x^3 + 4x^2 + 9x + 3$	$(3x^2 + 4)(3x + 1)$ SILVER	$(4x^2 + 3)(3x + 1)$ DARK GREEN	$(4x + 3)(3x^2 + 1)$ BLACK	$(x^2 + 3)(3x + 4)$ LIGHT PINK
<b>4</b>	$12x^3 - 9x^2 + 20x - 15$	$(3x^2 + 5)(4x + 3)$ MAROON	$(3x^2 - 5)(4x + 3)$ LIGHT PURPLE	$(3x^2 + 3)(4x - 5)$ ORANGE	$(3x^2 + 5)(4x - 3)$ GREEN
<b>5</b>	$25x^3 + 15x^2 + 20x + 12$	$(5x^2 + 4)(5x + 3)$ BLACK	$5(x^2 + 4)(x + 3)$ YELLOW	$(5x^2 + 3)(5x + 4)$ AQUA	$(5x^2 + 4)(3x + 5)$ LIGHT BLUE
<b>6</b>	$10x^3 - 25x^2 + 2x - 5$	$(5x^2 - 1)(2x - 5)$ GREEN	$(5x^2 - 1)(2x + 5)$ SILVER	$(5x^2 + 1)(2x - 5)$ RED	$(5x^2 + 1)(2x^2 - 5)$ MAROON
<b>7</b>	$35x^3 + 28x^2 - 10x - 8$	$(5x^2 - 2)(7x + 4)$ GRAY	$(7x^2 - 4)(5x + 2)$ ORANGE	$(7x^2 - 2)(5x + 4)$ RED	$(7x^2 + 2)(5x + 4)$ LIGHT PURPLE
<b>8</b>	$3x^3 + 4x^2 + 12x + 16$	$(x^2 + 4)(3x + 4)$ PURPLE	$(x^2 + 4)(x + 4)$ MAROON	$(3x^2 + 4)(x + 4)$ ORANGE	$3(x^2 + 4)(x + 4)$ DARK GREEN
<b>9</b>	$5x^3 - 3x^2 + 15x - 9$	$(x^2 + 3)(5x - 3)$ DARK PINK	$(x^2 + 3)(5x + 3)$ LIGHT BLUE	$(x^2 - 3)(5x - 3)$ SILVER	$(5x^2 + 3)(x - 3)$ YELLOW
<b>10</b>	$x^3 - 5x^2 + 3x - 15$	$(x^2 + 3)(x^2 - 5)$ PINK	$(x^2 + 3)(x - 5)$ GOLD	$(x^2 - 3)(x + 5)$ BLACK	$(x^2 + 5)(x - 3)$ LIGHT PINK
<b>11</b>	$5x^3 - 25x^2 + 4x - 20$	$(5x^2 + 4)(x + 5)$ PINK	$(5x^2 + 5)(x - 4)$ BROWN	$(x^2 + 4)(5x - 5)$ GREEN	$(5x^2 + 4)(x - 5)$ ORANGE
<b>12</b>	$30x^3 + 210x^2 + 48x + 336$	$(5x^2 + 8)(6x + 7)$ BLACK	$6(x^2 + 8)(5x + 7)$ GRAY	$6(5x^2 + 7)(x + 8)$ AQUA	$6(5x^2 + 8)(x + 7)$ GREEN
<b>13</b>	$40x^3 - 100x^2 + 8x - 20$	$4(5x^2 - 1)(2x + 5)$ YELLOW	$4(5x^2 + 1)(2x - 5)$ NAVY	$4(5x^2 + 1)(2x + 5)$ MAROON	$4(2x^2 + 1)(5x - 5)$ LIGHT PINK
<b>14</b>	$28x^3 - 20x^2 - 7x + 5$	$(2x - 1)(2x + 1)(7x - 5)$ WHITE	$(2x - 1)(2x - 1)(7x - 5)$ BROWN	$(2x - 1)(2x + 1)(7x + 5)$ LIGHT PURPLE	$(4x^2 + 1)(7x - 5)$ PINK
<b>15</b>	$32x^3 - 4x^2 - 32x + 4$	$(x - 1)(x + 1)(8x - 1)$ SILVER	$4(x^2 + 1)(8x - 1)$ YELLOW	$4(x - 1)(x + 1)(8x - 1)$ GRAY	$4(x + 1)(x + 1)(8x + 1)$ LIGHT BLUE