

Factoring Polynomials

Name _____

Factor each polynomial completely using the columns to record your answers. Some polynomials will factor in a single step and have an answer in only one column. Those that require 2-step factoring will have answers in 2 columns. See the examples.

Sum Form	Greatest Common Factor?	Difference of Squares?	Perfect Square Trinomial?	Not a Special Case but factorable?	Prime (not factorable)
1. $20x^2 + 40x - 60$	$20(x^2 + 2x - 3)$	No	No	$20(x-1)(x+3)$	No
2. $16y^2 - 25$	No	$(4y+5)(4y-5)$	No	No	No
3. $81x^2 - 9x$					
4. $4x^3 + 16x^2 + 4x$					
5. $200m^2 - 98$					
6. $c^2 - 14c + 49$					
7. $2x^2 - 5x + 2$					
8. $3x^2 + 15x + 18$					
9. $18x^3 - 32x$					
10. $18x^3 + 32x$					
11. $d^2 - 18d + 81$					
12. $20k^2 - 100k$					
13. $x^2 + 10x + 25$					
14. $x^2 + 8x + 40$					
15. $2x^3 - 2x$					

Handwritten notes: "20(x-1)(x+3)" and "20(x-1)(x+3)" with arrows pointing to the corresponding cells in the table.