

ALL PROBLEMS CAN BE COMPLETED ON THIS WORKSHEET

WS 13A.2 - More Factoring by Reverse FOIL

#1-20, Factor by Reverse FOIL. If a polynomial is not factorable, write "prime." (Hint: there is only one problem that is prime)	
1. $x^2 + 10x + 9$ $= (x+9)(x+1)$	Reverse FOIL ① Force FIRST ② Force SIGNS ③ Force LAST ④ Check OI
2. $3x^2 - 22x - 16$ $= (3x+2)(x-8)$	Reverse FOIL works on trinomials only.
3. $7r^2 - 23r - 20$ $= (7r+5)(r-4)$	
4. $y^2 - 13y + 22$ $= (y-11)(y-2)$	
5. $4m^2 - 16m - 9$ $= (2m+1)(2m-9)$	
6. $z^2 - 15z + 36$ $= (z-12)(z-3)$	
7. $5a^2 + 2a - 7$ $= (5a+7)(a-1)$	
8. $q^2 + 12q + 35$ $= (q+7)(q+5)$	
9. $24m^2 - 47m + 20$ $= (8m-5)(3m-4)$	
10. $22n^2 + 47n + 6$ $= (22n+3)(n+2)$	
11. $a^2 + 12ab + 27b^2$ $= (a+9b)(a+3b)$	
12. $3x^2 - xy - 2y^2$ $= (3x+2y)(x-y)$	
13. $5r^2 + 29rt - 5t^2$ prime	
14. $6n^2 - np - 2p^2$ $= (3n-2p)(2n+p)$	
15. $4y^2 + 8yz + 3z^2$ $= (2y+3z)(2y+z)$	
16. $m^2 - 26mn + 25n^2$ $= (m-25n)(m-n)$	
17. $x^2 - 27xy + 50y^2$ $= (x-25y)(x-2y)$	
18. $12x^2 + 35xy + 18y^2$ $= (4x+9y)(3x+2y)$	
19. $20r^2 - 53rt - 21t^2$ $= (20r+7t)(r-3t)$	
20. $2m^6 - 15m^3 + 18$ $= (2m^3-3)(m^3-6)$	