Principles of Algebra Name/Date Clee / Today

ALL PROBLEMS CAN BE COMPLETED ON THIS WORKSHEET

WS 13A.6 – Neverending 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)

Reverse FOIL
1. Force FIRST
2. Force SIGNS
3. Force LAST
4. Check OI

Reverse FOIL works on trinomials only.

1. $a^2 + 6a - 7$ = $(a+7)(a-1)$
2. $z^2 + 30z + 29$ = $(z+29)(z+1)$
3. $z^2 + 2z - 8$ = $(z+4)(z-2)$
4. $x^2 - 8x - 20$ = $(x-10)(x+2)$
5. $m^2 - 42m + 41$ = $(m-41)(m-1)$
6. $a^2 + 5a - 6$ = $(a+6)(a-1)$
7. $n^2 - 18n + 65$ = $(n-13)(n-5)$
8. $b^2 - b - 56$ = $(b-8)(b+7)$
9. $x^2 - xy - 6y^2$ = $(x-3y)(x+2y)$
10. $n^2 - 11np - 42p^2$ = $(n-14p)(n+3p)$
11. $72 - 17f + f^2 = f^2 - 17f + 72$ = $(f-9)(f-8)$
12. $c^2 - 5cd - 36d^2$ = $(c-9d)(c+4d)$
13. $j^2 - 4jk - 5k^2$ = $(j-5k)(j+k)$
14. $w^2 - 5wz + 10z^2$ = prime
15. $24a^2 + 110a + 9$ = $(12a+1)(2a+9)$
16. $2a^4 - a^2 - 10$ = $(2a^2-5)(a^2+2)$
17. $y^{10} - 11y^5 + 24$ = $(y^5-8)(y^5-3)$
18. $m^2 - 27mn + 72n^2$ = $(m-24n)(m-3n)$
19. $x^2 - 10xy + 16y^2$ = $(x-8y)(x-2y)$
20. $8p^2 - 2pq - 15q^2$ = $(4p+5q)(2p-3q)$