Factoring Puzzle Review of GCF, 2 terms, 3 terms, 4 terms Name: _____

Factor completely. Show all work on your own paper. Then decode the message.

_____ 1. x^3+8	A. Prime
_____ 2. $3x^6-3$	C. (x + 8) (x – 9)
_____ 3. $4x^3-20x^2+24x$	E. (x – y) (x + 3)
_____ 4. $6x^2-x-2$	F. (x + 7) (x – 2) (x + 2)
_____ 5. $x^4\left(x^2+5x-14\right)-16\left(x^2+5x-14\right)$	G. (5x – 1) (x – 1)
_____ 6. $x^2+3x-xy-3y$	I. $2x(3x^2y+1)(9x^4y^2-3x^2y+1)$
_____ 7. $x^4-x^2y-6y^2$	I. (x + 4) (x + 7)
_____ 8. $x^2+7x-18$	N. $(x^3+2)(x-1)(x^2+x+1)$
_____ 9. $x^2+11x+28$	N. 4x (x – 3) (x – 2)
_____ 10. $2x^2-18$	N. 2 (x – 3) (x + 3)
_____ 11. $x\left(x^2-4\right)+7\left(x^2-4\right)$	O. 2 (x – 2) (x – 5)
_____ 12. x^2+16	P. $\left(x^2+4\right)(x-2)^2(x+2)(x+7)$
_____ 13. x^2-x-72	R. $(x^2+2y)(x^2-3y)$
_____ 14. $2x^2+28x+98$	R. $(x^2+2)(x-6)(x+6)$
_____ 15. $2x^2-14x+20$	R. $3(x^2-1)(x^4+x^2+1)$
_____ 16. x^4-34x^2-72	T. $2\left(x+7\right)^2$
_____ 17. $54x^7y^3+2x$	T. (x + 9) (x – 2)
_____ 18. x^6+x^3-2	U. $(x+2)\left(x^2-2x+4\right)$
_____ 19. $5x^2-6x+1$	X. (2x + 1) (3x – 2)