Name: Key Period: _____ Date: _____

Section 5.3 Factoring DAY ONE

Factor completely by factoring out the GCF	
1. $5x+10$ GCF : 5 $5(x+2)$	2. x^2+11x GCF : x $x(x+11)$
3. $7x^4-14x^3$ GCF : $7x^3$ $7x^3(x-2)$	4. $3x^3-6x^2-12x$ GCF : 3x $3x(x^2-2x-4)$
Factor each trinomial completely.	
5. x^2+5x+4 1 & 4 mult = 4 add = 5 $(x+1)(x+4)$	6. $x^2-7x+12$ −3 & −4 mult = 12 add = −7 $(x-3)(x-4)$
7. $x^2+4x-12$ +6 & −2 mult = −12 add = 4 $(x+6)(x-2)$	8. $x^2-11x-12$ −12 & 1 mult = −12 add = −11 $(x-12)(x+1)$
9. x^2-6x+5 −1 & −5 mult = 5 add = −6 $(x-1)(x-5)$	10. $x^2-9x+20$ −4 & −5 mult = 20 add = −9 $(x-4)(x-5)$
11. x^2+3x-4 4 & −1 mult = −4 add = 3 $(x+4)(x-1)$	12. $x^2-2x-15$ −5 and 3 mult = −15 add = −2 $(x-5)(x+3)$
Factor using a difference of squares	
13. x^2-16 $(x-4)(x+4)$	14. x^2-100 $(x-10)(x+10)$
15. x^2+9 prime	16. $9x^2-49$ $(3x-7)(3x+7)$
17. $4x^2-81$ $(2x-9)(2x+9)$	18. $2x^3-32x$ GCF: 2x $2x(x^2-16)$ $2x(x-4)(x+4)$
Choose the appropriate method and factor completely	
19. $f(x)=x^2-17x+60$ mult = 60 add = −17 −5 & −12 trinomial (method) $f(x)=(x-5)(x-12)$ (factored expression)	20. $h(x)=x^2+4x$ GCF (method) $h(x)=x(x+4)$ (factored expression)
21. $f(x)=x^2-1$ diff. squares (method) $f(x)=(x+1)(x-1)$ (factored expression)	22. $g(x)=2x^2-12x-32$ $2(x^2-6x-16)$ mult = −16 add = −6 −8 & 2 GCF, trinomial (method) $g(x)=2(x-8)(x+2)$ (factored expression