Algebra II 4.3: Factoring/Solving by Factoring Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Factor the following completely.

1. $12x+60$ 2. $x^{2}+11x+28$ 3. $10a^{2}b+16ab^{2}$

4. $x^{2}-x-20$ 5. $x^{2}+5x-12$ 6. $3x^{3}y^{2}+9xy^{4}$

7. $x^{2}-7x-60$ 8. $x^{2}-10x+24$ 9. $15x^{2}+5x$

Solve by factoring.

10. $x^{2}-2x-15=0$ 11. $x^{2}+10x-24=0$ 12. $3x^{2}-9x-54=0$

13. $2x^{2}+4x-6=0$ 14. $2x^{2}+11x-30=0$ 15. $8x+x^{2}+16=0$

Solve by factoring.

1. $-3y^{2}+15y=0$ 2. $3x^{2}+5x-2=0$ 3. $x^{2}-36=0$

4. $x^{2}+10x-24=0$ 5. $z^{2}+4z-32=0$ 6. $2x^{2}-3x-2=0$

7. $9x^{2}-64=0$ 8. $15x^{2}+5x=0$ 9. $-56+x^{2}-10x=0$

10. $y^{2}-1=0$ 11. $3x^{2}+10x+3=0$ 12. $x^{2}-100=0$

13. $2x^{2}+10x+12=0$ 14. $18x^{2}-8=0$ 15. $5x^{2}-4x-12=0$

16. $x^{2}-5x-50=0$ 17. $b^{2}-144=0$ 18. $12x+60=0$

19. $x^{2}+11x+28$ 20. $x^{2}-x-20=0$ 21. $x^{2}-7x-60=0$

22. $x^{2}-10x+24=0$ 23. $x^{2}-2x-15=0$