Trig Review #3 Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Factor each trinomial.**

1. $x^{2}+4x+3$ 2. $c^{2}-4c-12$ 3. $y^{2}+14y+13$

4. $x^{2}-4x-21$ 5. $x^{2}-x-6$ 6. $m^{2}+9m+20$

7. $x^{2}+22x+121$ 8. $25c^{2}-10c-1$ 9. $169-26r+r^{2}$

10. $16m^{2}+48m+36$ 11. $b^{2}-16b+256$ 12. $9w^{2}+24w+16$

**Factor each polynomial.**

13. $m^{2}-100$ 14. $225c^{2}-a^{2}$ 15. $72p^{2}-50$

16. $16n^{2}-25$ 17. $8y^{2}-200$ 18. $36x^{2}-100y^{2}$

**Solve each equation.**

19. $4b\left(b+4\right)=0$ 20. $\left(2y+5\right)\left(y-4\right)=0$ 21. $c^{2}-26c=56$

22. $9x^{2}=27x$ 23. $x^{2}+17x+42=0$ 24. $9z^{2}=-30z +25$