

Name _____ Section/Period _____
Assigned: _____

Completely factor each of the following. If it's NOT factorable, just say so. Then, if possible, solve for the roots of the quadratic. You do NOT need to graph these.

1. $f(x)=x^2+6x+9$

2. $f(x)=x^2-x-12$

3. $f(x)=x^2-17x+72$

4. $f(x)=x^2+4x-45$

5. $f(x)=x^2-10x+25$

6. $f(x)=x^2-64$

7. $f(x)=9x^2-21x+10$

8. $f(x)=30x^2-35x+10$

9. $f(x)=16x^2-1$

10. $f(x)=16x^2+4$

11. $f(x)=6x^2+x-2$

For each of the following, graph completely. Be sure to include each of the following (a table of values is NOT needed):

- roots
- y-intercept
- vertex
- axis of symmetry

12. $f(x)=x^2+x-20$

13. $f(x)=2x^2+2x-12$

14. $f(x)=x^2+2x+1$

15. $f(x)=9x^2-4$