

Name _____ Section/Period _____
Assigned: _____

Multiply each of the following. You do NOT have to graph these.

1. $(x+3)(x-2)$

2. $(2x+3)(x-4)$

3. $(4x+3)(2x-3)$

4. $(7x+3)(4x-2)$

5. $(3x+6)(x-3)$

6. $(x + \frac{3}{4})(2x - \frac{4}{5})$

7. $(x+3)^2$

8. $(3x-5)^2$

9. $(4x-2)^3$

Quadratics – Product of Two Binomials

For each of the following, find the roots of the quadratic (if they are real). Then put the quadratic into standard form and find the y-intercept and the axis of symmetry. Then put it into vertex form to find the vertex. Be sure to label each form. Finally, if the graph has 2 real roots, graph WITHOUT a table-o-values. If the quadratic has 1 or 0 real roots, graph WITH a table of values.

10. $f(x)=(x-2)(x+4)$

11. $f(x)=(2x+3)(3x-2)$

12. $f(x)=(x+3)(x+3)$

13. $f(x)=(3x-2)(2x+5)$

For each of the following, use the discriminant to find the number and type of roots for each quadratic.

14. $f(x)=x^2+3x-5$

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

16. $f(x)=-2x^2+3x-4$

17. $f(x)=4x^2+2+9x$

18. $f(x)=2x^2+12x+18$