Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Factoring quadratic expressions when a $\ne $ 1.

Multiply the following factors together.

1) $\left(2x-1\right)\left(x+5\right)$ (2) $\left(3x+2\right)\left(2x-3\right)$ (3) $\left(4x+1\right)\left(4x-1\right)$

Factor the following quadratic equations, if possible. If it cannot be factored, write *Not factorable.* Don’t forget to look for and GCF’s first.

4) $5x^{2}\mp 18x+9$ (5) $6x^{2}-21x$ (6) $10x^{2}-x-3$

7) $3x^{2}+2x-8$ (8) $4x^{2}+8x+3$ (9) $12x^{2}-12x-18$

10) $16x^{2}-6x-1$ (11) $5x^{2}-35x+60$ (12) $2x^{2}+7x+3$

13) $3x^{2}+3x+27$ (14) $8x^{2}-14x-4$ (15) $15x^{2}+27x-9$

16) $4x^{2}+12x+9$ (17) $15x^{2}+35x$ (18) $6x^{2}-19x+15$