**Factoring**

**What happens when factoring does not work?**

**I would not spend too much time trying to figure out if an equation factors; while factoring is very important the fact of the matter is most equations do not factor. However, all equations can be done using the quadratic formula.**

X=  Now you might ask, why don’t we just do every equation with the quadratic formula every single time and forget about factoring. If we did this we would never be able to finish a test, the quadratic formula can take a bit to do; plus factoring is going to be very useful (and quick) for a lot of what we do in higher level math.

Some Examples. Use the quadratic formula to solve.

1. x² + 3x + 2 = 0 2. 4x² – 8x = 1 3. x² + 8x = 0

Solve each equation any way you want. Show your work.

4. x2 + 11x + 18 = 0 5. x2 + 2x + 1 = 15 6. 7x2 – 9x +1 = 0

7. (x + 2)² = 36 8. x² – 10x + 25 = 0 9. x² + 3x + 7 = 0