GSE Algebra 1 **8.9 – Quadratic Formula Proof**  Notes

Use the quadratic formula to solve the following problems.

1. $2x^{2}+39=-18x$ 2) $5x^{2}+3x+1=0$
2. $6x^{2}+11x-2=0$ 4) $16x^{2}+9=24x$

Now let’s try a couple word problems using the quadratic formula.

1. The height of a flare that Mrs. Forrester has fired from the deck of a sinking ship can be modeled by

$h=-16t^{2}+104t+56, $where h is the height of the flare above the water and t is the time in seconds. Find the time it takes the flare to hit the water.

1. The length of a rectangle exceeds it width by 4 inches. Find the dimensions of the rectangle if its area is 96 square inches.