Alg2 – Solving Equations using Functions & Algebra, due Monday 9/18

Solve the following equations using algebra, and then verifying your solution by substituting your results into the original equations. Discard any extraneous solutions. Draw graphs *for yourself* to verify your final solution(s).

1.
$$3|x+7|=12$$

2.
$$|4-2q|+5=9$$

3.
$$3|2x + 5| = 9x - 6$$

4.
$$2|4x - 5| = 12x - 18$$

5.
$$|x + 5| = 3x - 7$$

6.
$$|2w - 3| = 3w - 2$$