Alg 2A Classwork after Ch 5 Quiz Sec 5-5 Spring 2017 Name:

Solving equations by factoring.

Step 1 Rearrange the equation so that everything is on one side (Written in Standard Form) and the other side = 0.

Step 2 Factor completely.

Step 3 Find the zeros of each factor containing a variable (set each factor equal to zero and solve for the variable).

Example: Solve $x^2 - x = 12$

Rewrite as: $x^2 - x - 12 = 0$

Factor: $(x-4)(x+3) = 0$

Solutions are the zeros of each factor: $x-4=0$ and $x+3=0$ Solutions: $x = -3, 4$

Solve each by factoring. Show the final factored form then state the solutions (zeros).

1. $48x^2 + 36x = 0$

2. $x^2 - 9x + 20 = 0$

3. $2x^2 + 6x = 20$

4. $8x^2 - 21 = 22x$

5. $36x^2 - 49 = 0$

6. $24x^3 + 72x^2 + 30x = 0$

7. $45x^2 - 80 = 0$

8. $5x^2 + 30x + 45 = 0$