

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 the one side that is in Standard Form

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

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

6.  $45x^3 - 80x = 0$

7.  $36x^2 - 49 = 0$