Solve Quadratic Equations by Factoring

A quadratic equation has the form of $ax^2 + bx + c = 0$

Steps to solve by factoring:

1. Write in standard form: $ax^2 + bx + c = 0$
2. Factor.
3. Set each factor that has a variable equal to zero.
4. Solve each resulting linear equation.

1. $-14x^2 + 21x = 0$

2. $12x^2 - 26x - 10 = 0$

3. $5x^2 + 8x - 1 = x(x + 8)$

4. $7x^2 + 23x + 4 = (x + 4)(x - 4)$