Algebra 1 **9.2 Notes – Solving Quadratics by Factoring**

Ex. 1: Solve the quadratic. $(x-9)(5x+2)=0$

1) For $a \cdot b = 0$, either a or b equals 0. So with that logic, either $(x-9)=0$ or $(5x+2)=0$

2) Determine what value of x makes the factor equal zero by setting the factor equal to zero.

3) Solve each factor for x.

Ex. 2: Solve the quadratic. $(2x-1)(x+3)=0$

Ex. 3: Solve the quadratic by factoring. $x^2+9x=-20$

Ex. 3: Solve the quadratic by factoring. $2x^2-x-3=0$

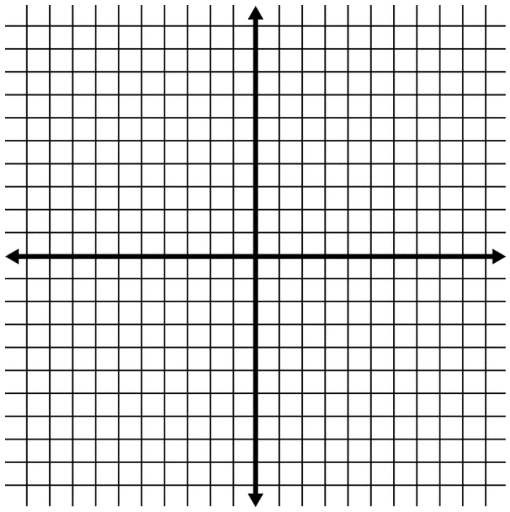
You Try! Solve by factoring: $x^2 - x = 20$

Ex. 4: Use factoring to graph the function: $f(x) = x^2 - 2x - 8$

1) Factor and find the x-intercepts.

2) Plot the x-intercepts

3) Find the vertex and graph.



Ex. 5: Write the factored form of the quadratic given the graph.