

1/28/13 Solving Equations by factoring

Solve

①  $x^2 + 7x - 8 = 0$

~~$\frac{8}{x}$~~   ~~$\frac{-8}{x}$~~

$(x-1)(x+8) = 0$

$x = 1, -8$

②  $\frac{x^2}{x} + \frac{7x}{x} = 0$

$x(x+7) = 0$

$x = 0, -7$

③  $9x^2 - 36 = 0$

$(3x)(3x) (6)(6)$

$(3x+6)(3x-6) = 0$

$3x+6=0$        $3x-6=0$

$-6 -6$        $+6 +6$

$\frac{3x}{3} = \frac{-6}{3}$        $\frac{3x}{3} = \frac{6}{3}$

$x = -2, 2$

Factor first (super X, difference of squares or greatest common factor) then solve. Easy.