

**Intermediate Algebra Brush-Up Session --- Factoring and Solving Equations by Factoring**

If you placed into MATH 098, this might be useful for you

1. Factor the following:

a) Rewrite the expression as an equivalent expression by factoring out the Greatest Common

Factor:  $9x^3y - 18x^3y^2$

b) Factor by grouping:  $5x^3 + 4x^2 - 10x - 8$

c) Factor:  $x^2 + 7x + 12$

d) Factor:  $x^2 - 23x - 50$

e) Factor:  $x^2 - 6x + 8$

f) Factor:  $2x^2 + 2x - 84$

g) Factor:  $12t^2 + t^3 + 32t$

h) Factor:  $x^2 - 36$

i) Factor:  $8 - 2x^2$

j) Factor:  $x^4 - 16$

2. Solve all by factoring

a) Solve:  $x^2 + 2x - 24 = 0$

b) Solve:  $x^2 - x = 20$

c) Solve:  $x^3 + 4x = 5x^2$

d) Solve:  $2x^2 - 4x + 2 = 0$

e) Solve:  $(t+2)(t-7) = -18$

f) Solve:  $5t^2 = 45$

g) Solve:  $x^2 = x$

h) Solve:  $5t^2 = 45t$

Need more help? Check out these Modumath Lessons: Intermediate Algebra Skills Lessons  
20 – 22 <http://modumath.org/mm/GraysHarbor.html>