MAT 012 **Quiz 1: Factoring** **SOLUTIONS**

1) $x^2+4x-12 = (x+6)(x-2)$

2) $2x^2-12x+10 = 2(x^2-6x+5) = 2(x-5)(x-1)$

3) $64x^2-121 = (8x+11)(8x-11)$

4) $4x^2-18x-10$

$= \dfrac{(4x-20)(4x+2)}{4}$

$= \dfrac{{}^{1}\cancel{4}(x-5)(4x+2)}{\cancel{4}_{1}}$

$= (x-5)(4x+2)$

5) $16x^2+25$ is prime

6) $6x^4-11x^2+4 = \dfrac{(6x^2-8)(6x^2-3)}{6} = \dfrac{2(3x^2-4)\cdot 3(2x^2-1)}{6}$

$= \dfrac{{}^{1}\cancel{6}(3x^2-4)(2x^2-1)}{\cancel{6}_{1}} = (3x^2-4)(2x^2-1)$