New Jersey City University
Intermediate Algebra
Peer Led Team Learning Workshop 5A
Factoring (Basic Skill Factoring Problems)

1. **Section 5.4 – Common Factor Method**

   Factor completely: $24x^3y^4z^4 - 32x^6y^2z^3 + 64x^2y^3z^5$

2. **Section 5.4 – Factoring by Grouping Method**
   (Note we usually use this method for a polynomial of even number of terms, in our course it means 4 terms)

   Factor by Grouping: $x^2y^2 + 5x^2y + 2y^3 + 10y^2 - 3y - 15$

3. **Section 5.5 – Factoring Trinomials** (**Case 1**: $x^2 + bx + c$, the coefficient of x^2 is 1.)

   Factor completely: $x^6 + 12x^3 + 32$

4. **Section 5.5 – Factoring Trinomials** (**Case 2**: $ax^2 + bx + c$, the coefficient of x^2 is not 1.)

   Factor completely: $24x^4 + 14x^2y - 3y^2$