**Problem 78**:

**a4b + a2b3** Original equation

**a2b(a2) + a2b(b2)** Factor out the Greatest Common Factor (GCF) from each term.

**a2b(a2 + b2)** Final answer. To check equation, multiply through redistribution. This will give us the original equation of:

**a4b + a2b3**

**Problem** **52**:

**18z + 45 + z2** Original equation

**z2 + 18z + 45** Place the polynomial in the proper factoring form of x2 + bx + c.

**A= 1, b= 18 c= 45** Find the values of a, b and c, then multiply the two outer terms.

(1)(45) which will give us the sum of 18 for the middle term

**z2 + 18z + 45** Re-write the equation**.**

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**Z2+3z+15z + 45** Group the first two terms and then the secondtwo terms together.

**(z2 + 3z)+(15z + 45)** Factor out the Greatest Common Factor (GCF) from each group.

**z(z + 3) +15(z + 3)**

**(z + 15) + (z + 3)** Final answer

**z2 +3z + 15z + 45** To check equation, multiply by redistributing both terms.

**z2 +18z + 45** Combine like terms, thus giving us the original equation.