

# Factorizing Polynomials Part 1

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## 1 What we have Leared

During the last lecture we were introduced to the concept of factorizing polynomials. We were taught about two different methods for doing said factorization.

### Method 1.

Pulling out common factors.

### Method 2.

Using identities.

#### The Quadratic Identity

$$a^2 \pm 2ab + b^2 = (a \pm b)^2$$

#### The Conjugate Identity

$$a^2 - b^2 = (a + b)(a - b)$$

## 2 Problems

**A** Factorize the following polynomials

**A.1**  $7x^3y^3z - 21x^2y^3z^3 - 35x^4y^2z^6$