Factoring Polynomials: Guided Notes

# Factor Patterns with Two Terms

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| --- | --- |
| **Perfect Squares** | **Perfect Cubes** |
| *We can only factor a difference  (not a sum) of two squares.* | *We can factor a sum or difference  of two cubes.* |

## Examples

Factor each of the following polynomials completely. If the polynomial is unfactorable, write *prime*.

**1)** 

**3)** 

**2)** 

# Factoring With 4 Terms

Use **grouping** when factoring four terms.

## Examples

Factor each of the following polynomials completely. If the polynomial is unfactorable, write *prime*.

**4)** 

**5)** 

# Factoring With 3 Terms

If we can rewrite it in the form of a quadratic, then factor it like a quadratic.

## Example

Factor each of the following polynomials completely. If the polynomial is unfactorable, write *prime*.

**6)** 