# MTH 30 LECTURE NOTES (Ojakian)
## Topic 12: Polynomial Divion

**OUTLINE**
(References: 3.5)

1. Synthetic Division

2. Use in factoring

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1. <u>Recall Long Division with numbers</u>

   (a) Dividend (inside thing dividing into)

   (b) Divsor (what is dividing)

   (c) Quotient (how many times goes in)

   (d) Remainder (leftover)

   (e) Three ways to express result:

       i. State Quotient and Remainder
       ii. Express just Dividend (i.e. $= (Quotient)(Divisor) + Remainder$)
       iii. Express rational expression Dividend/Divisor

2. <u>Division with Algebraic Expressions</u>

   Do the above with algebra.

   Problems from Section 3.5: 14, 15, 17, 21, 39, 41, 49