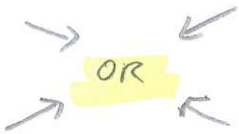
* Work Period ** Complete 1 of 2 Tasks. Build Toolkit #3 OR Complete Knowledgehook. *

Complete Toolkit #3, "Unit 3 - Toolkit Assignment - Polynomials: Factoring and Expanding."

Note$_1$: This is the most compact of the 6 toolkit assignments in MPM2D.

Note$_2$: Toolkit marked ___/17.



Complete Knowledgehook, "Factoring and Expanding Evaluation"
Class Code** tin8434

Note$_3$: Knowledgehook marked ___/17.

MPM 2DI/W **Name:** _____ **Date:** _____

/17

Unit 3 – Toolkit Assignment – Polynomials: Factoring & Expanding

Toolkit aka Smartsheet design. **[17 marks for your fully solved and answered examples]**

You should know and apply the following:

- Binomial products using the distributive property or FOIL.
  i.e. $(a+b)(c+d)=ac+ad+bc+bd$ [2 examples with solutions marks]

- "**S**quare, **D**ouble the product of the two terms, **S**quare" pattern as a unique efficient binomial product.
  i.e. $(a\pm b)^2=a^2\pm 2ab+b^2$ [2 examples with solutions marks]

- Unique binomial product of sum and difference binomials aka "**F**irst and **L**ast" pattern.
  $(a+b)(a-b)=a^2-b^2$ [2 examples with solutions marks]

- Common factor first
  Ex. $2x^2-18=2(x^2-9)$ [3 examples with the solutions for 3 marks]

- Group factoring. [2 examples with the solutions for 2 marks]

- Sum and product trinomial factoring.
  i.e. $ax^2+bx+c, if\ a=1$ [2 examples with the solutions for 2 marks]

- Tricky trinomial factoring using either the decomposition process or the guess and check process.
  i.e. $ax^2+bx+c, if\ a\neq 1$ [2 examples with the solutions for 2 marks]

- Factoring a difference of two squares.
  i.e. $(a)^2-(b)^2=(a+b)(a-b)$ [2 examples with the solutions for 2 marks]