Level 1 – AS91027 – 4 Credits – Common Assessment Task

**Apply algebraic procedures in solving problems**

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| **Achievement** | **Achievement with Merit** | **Achievement with Excellence** |
| Apply algebraic procedures in solving problems. | Apply algebraic procedures, using relational thinking, in solving problems | Apply algebraic procedures, using extended abstract thinking, in solving problems. |

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# Part 1: Title

Multiplying Algebraic Terms

* One Letter
  + No Coefficients
  + With Coefficients
* Two Letters
  + No Coefficients
  + With Coefficients
* Three Letters with Coefficients

Combining Like Terms <https://www.youtube.com/watch?v=Px9T-9-g2Yk>

* Without Coefficients
  + One Variable **algebra2liketerms1**
  + Two Variables **algebra2liketerms2**
* Positive Coefficients <https://www.youtube.com/watch?v=dfcvVCoxyok>
  + One Variable **algebra2liketerms3**
  + One Variable and Numbers
  + Two Variables **algebra2liketerms4**
* Integer Coefficients <https://www.youtube.com/watch?v=2KgkJ7qwByE>
  + One Variable **algebra2liketerms5**
  + One Variable and Numbers
  + Two Variable **algebra2liketerms6**
* Squared Terms <https://www.youtube.com/watch?v=dBenwIfVs9M>

Then can go onto what is in the standard…

Students need to be familiar with procedures related to:

• factorising

• expanding

• simplifying algebraic expressions involving exponents, such as (2x 4 ) 3 or 12a5 8a7

• substituting values into formulae

• manipulating and simplifying expressions such as 3x 4 − x + 2 3 or 3x 2 −12 x − 2

• rearranging formulae such as E = 1 2 mv 2 or 1 u + 1 v = 1 f

• solving linear equations or inequations such as 5x + 12 = 3 - 2x or 3(x - 2) < 7

• solving quadratic equations such as (8x + 3)(x - 6) = 0, x2 + 5x – 6 = 0, 3x2 =10x - 8 (completing the square and the quadratic formula are not required)

• solving simple equations involving exponents such as x3 = 8, 5x =125

• solving pairs of simultaneous linear equations with two unknowns.