Factorisation, Inequalities and Equations

Maths

Statement Code no: 17

Student: Class:

At Junior Certificate level the student can:

Factorise, graph and solve inequalities and solve more challenging equations in Algebra

Date Commenced: ◯◯/◯◯/◯◯   **Date Awarded:** ◯◯/◯◯/◯◯

Learning Targets - This has been demonstrated by your ability to:

1   Multiply two algebraic expressions
eg $(x)(x^2)$ $(x + 2)(x + 3)$ $(2x + 3)(3x^2 - 2x + 3)$ ◯◯◯

2   Solve more challenging equations
eg $8x + 5 = 7x + 10$ $5(3x - 2) = 7(2x - 1)$ ◯◯◯

3   Use equations to solve problems   ◯◯◯

4   Use grouping to find the factors of algebraic expressions   ◯◯◯

5   Find the factors of quadratic expressions
(which have a positve third term)
eg $x^2 + 8x + 12$ $x^2 - 12x + 20$ ◯◯◯

6   Find the factors of quadratic expressions
(which have a negative third term)
eg $x^2 + 7x - 30$ $x^2 - 13x - 30$ ◯◯◯

7   Find the factors of the difference of two squares
eg $x^2 - 9$ $x^2 - 100$ $36x^2 - 49y^2$ ◯◯◯

8   Simplify algebraic fractions
eg $\dfrac{6x}{3x}$ $\dfrac{12(a + b)}{3(a + b)}$ $\dfrac{x^2 + 4x - 5}{x - 1}$ ◯◯◯

9   Solve the inequalities ($<, >, \leq, \geq$)
eg $4 - 3x \geq 13$ ◯◯◯

10   Graph the solutions of these inequalities on
the number line   ◯◯◯

Work begun ◯◯◯ | Work in progress ◯◯◯ | Work completed ◯◯◯