

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 positive 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 $\frac{6x}{3x}$ $\frac{12(a+b)}{3(a+b)}$ $\frac{x^2+4x-5}{x-1}$ | ☐ ☐ ☐ |
| 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 ☐ ☐ ☐

Fachtóiriú, Éagothromóidí agus Cothromóidí

Matamaitic

Cód Ráitis Uimhir 17

Dalta:

Rang:

Ag leibhéal an Teastais Shóisearaigh tá mé ábalta:

Fachtóiriú a dhéanamh, graf a tharraingt agus éagrothromóidí a réiteach chomh maith le cothromóidí níos deacra san Ailgéabar a réiteach

Dáta Tosaithe:

Dáta Bronnta:

Spriocanna Foghlama atá le baint amach agat:

- 1 Iolraigh dhá shlonn ailgéabrach
eg $(x)(x^2)$ $(x+2)(x+3)$ $(2x+3)(3x^2-2x+3)$
- 2 Réitigh cothromóidí níos deacra
eg $8x+5=7x+10$ $5(3x-2)=7(2x-1)$
- 3 Úsáid cothromóidí chun fadhbanna a réiteach
- 4 Úsáid grúpáil chun fachtóirí slonn ailgéabrach a aimsiú
- 5 Aimsigh fachtóirí slonn cearnach (a bhfuil tríú téarma dearfach acu)
eg $x^2+8x+12$ $x^2-12x+20$
- 6 Aimsigh fachtóirí slonn cearnach (a bhfuil tríú téarma diúltach acu)
eg $x^2+7x-30$ $x^2-13x-30$
- 7 Aimsigh fachtóirí na difríochta dhá chearnóg
eg x^2-9 x^2-100 $36x^2-49y^2$
- 8 Simpligh codáin ailgéabracha
eg $\frac{6x}{3x}$ $\frac{12(a+b)}{3(a+b)}$ $\frac{x^2+4x-5}{x-1}$
- 9 Réitigh na héagothromóidí ($<$, $>$, $\leq$, $\geq$)
 $4-3x \geq 13$
- 10 Tarraing graf a léiríonn réiteach na n-éagothromóidí seo ar an uimhirlíne

Obair Tosaithe

Obair idir lámha

Obair Críochnaithe