**PARALLEL QUESTIONS FROM THE 2013 NCEA EXAMINATIONS**

ALGEBRA

ACHIEVEMENT

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| 1a Factorise ***8x2 – 2x – 3***  | 1b Solve ***8x2 – 2x – 3 = 0*** |
| 2a Simplify (2b3)5 (4b5)2 | 2b Simplify **⅓** 8c6  27d9 |
| 3a Solve  Log (64) = 2 ***x*** | 3b Ann borrows $4000 at the beginning of her UNI course.If she passes all her exams, she is told her loan will reduce by 30% each year.Write an expression for the amount she owes after n years. |

**PARALLEL QUESTIONS FROM THE 2013 NCEA EXAMINATIONS**

ALGEBRA

MERIT

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| 1c Simplify FULLY ***3x2 – 48***  ***x2 + x – 20***  | 1dSolve ***(x + 4) – 2√(x + 4) – 3 = 0******HINT let b = x + 4*** |
| 2c Simplify $(x^{2})^{\frac{1}{6}}$ × $(x^{5})^{\frac{1}{3}}$ | 2d Bill thinks of a numberHe squares itThen multiplies by 4Then adds 4 times the original number The answer is 24Find his number. |
| 3c Solve ***2(x + 4) = 32×8x***  | 3d Ann borrows $4000 at the beginning of her UNI course.If she passes all her exams, she is told her loan will reduce by 30% each year.How long will she study for if she owes less than $500 |