**PARALLEL QUESTIONS FROM THE 2013 NCEA EXAMINATIONS**

ALGEBRA

ACHIEVEMENT

|  |  |
| --- | --- |
| 1a Factorise ***8x2 + 10x – 3***  | 1b Solve ***8x2 + 10x – 3 = 0*** |
| 2a Simplify (5b3)2 (2b5)4 | 2b Simplify **¼** 81c8  16d12 |
| 3a Solve  Log (32) = 5 ***x*** | 3b If $2000 is invested at 8% interest, then the final amount A in n years is given by A = 2000×(1.08)nFind A if n= 6 years  |

**PARALLEL QUESTIONS FROM THE 2013 NCEA EXAMINATIONS**

ALGEBRA

MERIT

|  |  |
| --- | --- |
| 1c Simplify FULLY ***5x2 – 45***  ***x2 + x – 12***  | 1dSolve ***(x + 1) – 2√(x + 1) – 8 = 0******HINT let b2 = (x + 1)*** |
| 2c Simplify  (c6) **½**× (c12) **⅓** | 2d Phil thinks of a numberHe squares itThen adds 5 times the original number The answer is 66Form an equation and solve it to find his number. |
| 3c Solve ***5(x + 4) = 6×3x***  | 3d If $2000 is invested at 8% interest, then the final amount A in n years is given by A = 2000×(1.08)nWhen will the amount A be greater than $6000? |