**PARALLEL QUESTIONS FROM THE NCEA EXAMINATIONS(2)**

**It is IMPORTANT to keep all these topics FRESH in your mind.**

ALGEBRA

**ACHIEVEMENT LEVEL**

|  |  |
| --- | --- |
| 1a Factorise  ***6x2 – 11x – 2*** | 1b Solve  ***6x2 – 11x – 2 = 0*** |
| 2a Simplify  ***(4x4)2***  ***(2x2)3*** | 2b Simplify  ***(8 x12) ⅔*** |
| 3a Find ***x***  ***Log x (64) = 6*** | 3b  If ***T = p √(ab)***  make ***b*** the subject of the equation. |

You need 5 out of 6 correct for achieved!

**PARALLEL QUESTIONS FROM THE NCEA EXAMINATIONS(3)**

**It is IMPORTANT to keep all these topics FRESH in your mind.**

ALGEBRA

**ACHIEVEMENT LEVEL**

|  |  |
| --- | --- |
| 1a Factorise  ***6x2 + x – 2*** | 1b Solve  ***6x2 + x – 2 = 0*** |
| 2a Simplify  ***(3x2)3 × (2x3)2*** | 2b Simplify  ***9a2*** - ½  ***25b4*** |
| 3a Find  log 4 (12) | 3b Make ***v*** the subject of the formula: |

You need 5 out of 6 correct for achieved!

**PARALLEL QUESTIONS FROM THE NCEA EXAMINATIONS(4)**

**It is IMPORTANT to keep all these topics FRESH in your mind.**

ALGEBRA

**MERIT LEVEL**

|  |  |
| --- | --- |
| 1c If the roots of the equation  ***px2 + qx + r = 0*** are ***x*** = 7 and ***x*** = -9  find ***p, q*** and ***r*** | 1d Solve ***x = log2(70)*** |
| 2c If P = D×(1.08)n  Find n if P = 4D | 2d Combine into one fraction: |
| 3c Solve for ***x***  ***2x × 3x = 40*** | 3d Solve the equation: |

You need 1 merit question correct in each of the questions 1, 2 and 3.

**PARALLEL QUESTIONS FROM THE NCEA EXAMINATIONS(5)**

**It is IMPORTANT to keep all these topics FRESH in your mind.**

ALGEBRA

**MERIT LEVEL to Excellence Level.**

|  |  |
| --- | --- |
| 1c If the roots of the equation  ***ax2 + bx + c = 0***  are ***x*** = **⅔** and ***x*** = -**¾**  find ***a, b*** and ***c as integers.*** | 1d The length of a room is 3 m longer than the width and its area is 108 m2. **Form an equation** and solve it to find the width and length of the room. |
| 2c Solve ***(x2 – 5)2 = 16*** | 2d Combine into one fraction: |
| 3c Solve  ***(x2 – 4)2 = (x + 2)2*** | 3d Find the range of values of ***p*** so that ***x2 + (p – 1)x + p + 2 = 0*** has  (i) 1 real solution.  (ii) no real solutions.  (iii) 2 real solutions |

You need 1 merit question correct in each of the questions 1, 2 and 3.