**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:$\sqrt{\frac{a}{b+v}}=p^{3}$  |

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*** = -9find ***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: $\frac{4}{3x-5} + \frac{6}{2x-1}$ |
| 3c Solve for ***x*** ***2x × 3x = 40***  | 3d Solve the equation:$$\frac{1}{x+1}+\frac{1}{x+2}= \frac{5}{6}$$  |

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: $\frac{7}{x-6}- \frac{6}{x-4}$ |
| 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.