PARALLEL QUESTIONS FROM THE NCEA EXAMINATIONS(2)

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

ALGEBRA

ACHIEVEMENT LEVEL

1a Factorise $6x^2 - 11x - 2$	1b Solve $6x^2 - 11x - 2 = 0$
2a Simplify $\frac{(4x^4)^2}{(2x^2)^3}$	2b Simplify $(8x^{12})^{\frac{2}{3}}$
3a Find x $\text{Log}_x(64) = 6$	3b If $T = p\sqrt{(ab)}$ 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 $6x^2 + x - 2$	1b Solve $6x^2 + x - 2 = 0$
2a Simplify $(3x^2)^3 \times (2x^3)^2$	2b Simplify $\left(\frac{9a^2}{25b^4}\right)^{-\frac{1}{2}}$
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)

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ALGEBRA

MERIT LEVEL

1c If the roots of the equation $px^2 + qx + r = 0$ are $x = 7$ and $x = -9$ find p, q and r	1d Solve $x = \log_2(70)$
2c If $P = D\times(1.08)^n$ Find n if $P = 4D$	2d Combine into one fraction: $\frac{4}{3x-5} + \frac{6}{2x-1}$
3c Solve for x $2^x \times 3^x = 40$	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)

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ALGEBRA

MERIT LEVEL to Excellence Level.

1c If the roots of the equation $ax^2 + bx + c = 0$ are $x = \frac{2}{3}$ and $x = -\frac{3}{4}$ 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 m^2. **Form an equation** and solve it to find the width and length of the room.
2c Solve $(x^2 - 5)^2 = 16$	2d Combine into one fraction: $\frac{7}{x-6} - \frac{6}{x-4}$
3c Solve $(x^2 - 4)^2 = (x + 2)^2$	3d Find the range of values of ***p*** so that $x^2 + (p - 1)x + p + 2 = 0$ 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.