



PAST PAPER QUESTIONS GRADE 11 MATHEMATICS

DO THESE QUESTIONS AS PART OF REINFORCING
THE CONCEPTS

QUESTION 1

1.1 Solve for x in each of the following:

$$1.1.1 \quad x(2x+1) = 0 \quad (2)$$

$$1.1.2 \quad 5x^2 + 2x - 6 = 0 \text{ (correct to TWO decimal places)} \quad (3)$$

$$1.1.3 \quad 2x^2 - 2 \geq 3x \quad (4)$$

$$1.1.4 \quad \sqrt{2x+5} - \frac{3}{\sqrt{2x+5}} = -2 \quad (6)$$

QUESTION 3

3.1 Given the linear pattern: $7 ; 2 ; -3 ; \dots$

3.1.1 Determine the general term, T_n , of the linear pattern. (2)

3.1.2 Calculate the value of T_{20} . (2)

3.1.3 Which term in the pattern has a value of -138 ? (2)

3.2 $6 ; 2x+1$ and $3x-3$ are the first three terms of a linear pattern.

Calculate the value of x . (3)

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QUESTION 5

Given: $f(x) = \frac{4}{x-3} + 2$ and $g(x) = x + 2$

- 5.1 Write down the equations of the asymptotes of f . (2)
- 5.2 Determine the x -intercept of f . (3)
- 5.3 Determine the y -intercept of f . (2)
- 5.4 Sketch the graphs of f and g on the same system of axes. Show clearly ALL the intercepts with the axes and any asymptotes. (5)
- 5.5 Calculate the x -coordinates of the points of intersection of f and g . (4)