

QUESTION 1

Equating the expression to zero was often overlooked.
When factorizing an expression, candidates still do not check factors for correctness.

Rounding off incorrectly was a frequent problem.
Correct use of calculators must be emphasized.
Formulae were incorrectly copied from the formulae sheet (e.g. dividing line not drawn through).

The concept of squaring both sides of an irrational equation is still not correctly understood.
Few candidates checked their solutions

Making x the subject of the linear equation was often incorrectly done
There was incorrect squaring of binomials.
Candidates tried to find solutions to a quadratic equation, even though b was negative.

QUESTIONS 2

Many candidates failed to recognise $b^2 - 4ac$ and tried to solve the expression.
Very few candidates knew that non-real roots/imaginary roots cannot be described and would write "roots are non-real and unequal, ..."

a , b and c is not restricted to constants i.e. $c = 2k$, not 2.
Candidates had difficulty in translating "real roots" into mathematical notation.
(real roots $b^2 - 4ac \geq 0$ and not just $b^2 - 4ac > 0$)

2.3.1 Equating to zero was often neglected, even though the expression is exactly divisible.

$f(x) = 0$ often confused with $f(0)$
Factorising a cubic expression is still problematic.

QUESTION 3

Was answered very well.
Was answered very poorly. The candidates do not know how to apply inequalities using the graph.
Candidates knew the circle equation, but were not as familiar with half circle.

and 3.2.3 Answered very well.

QUESTION 4

Candidates ignore the minus sign, so they do not take out the common factor.
They did not simplify inside the brackets first. If squaring, they left the middle term out.
They did not know the logarithm laws.
Laws were used incorrectly.
They did not change to the same base.
They did not divide by 3 and raise to the power of 5 on only one side, or part of one side.

GENERAL ADVICE TO CANDIDATES : 1. Use the calculator.
Try to use logs in all the sub questions.

QUESTION 5

Students who were unable to calculate the values of a and d were unable to answer questions 5.1.2 and 5.1.3. They generally knew which formulae to use.
Was very well answered, mainly because students did not need to use a formula and simply completed the pattern for the next five terms.
The students generally calculated a value for n , instead of giving the general term.

Very few candidates calculated the compound interest monthly, but instead calculated it yearly.

QUESTION 6

Determining the gradient using first principles was not well done because candidates made many notation mistakes.

6.2

and 6.3 Candidates could not interpret the difference between average gradient and a gradient at a point.

QUESTION 7

This question was not well answered.

Candidates did not concentrate on what the question was asking (i.e the turning points) and tended to calculate the y- & x- intercepts as well.

Poorly answered. Very few knew the form of the special case $y = k$.

Poorly answered. Calculating the distance to + OM posed a problem.

QUESTION 8

It seems that candidates cannot read with insight, therefore the interpretation was frequently incorrect.