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NZQA

NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

For Supervisor's use only

Level 2 Mathematics, 2008

90287 Use coordinate geometry methods

Credits: Two
2.00 pm Monday 24 November 2008

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

Make sure you have the Formulae Sheet L2-MATHF.

You should answer ALL the questions in this booklet.

If you need more space for any answer, use the page(s) provided at the back of this booklet and clearly number the question.

Check that this booklet has pages 2–6 in the correct order and that none of these pages is blank.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

For Assessor's use only	**Achievement Criteria**		
Achievement	**Achievement with Merit**	**Achievement with Excellence**	
Use coordinate geometry methods.	Solve problems involving coordinate geometry methods.	Solve extended problems involving coordinate geometry methods.	
Overall Level of Performance			

You are advised to spend 25 minutes answering the questions in this booklet.

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QUESTION ONE

(a) Find the equation of the line segment joining the points (–2,3) and (5,4).

(b) Find the distance between the points (–2,3) and (5,4).

QUESTION TWO

Find the coordinates of the point of intersection of the line $y = x - 5$ and the line $2x + 3y = 65$.

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QUESTION THREE

The line $5x + 3y = 7$ is perpendicular to the line $4x + ky = 9$, where k is a constant.

Find the value of k.

QUESTION FOUR

A (3,5), B (5,8) and C (–1,2) are three points.
From point A, a line is drawn so that it is perpendicular to the line BC.

Find the coordinates of the point where the perpendicular line meets BC.

QUESTION FIVE

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B (3,5) and C (−4,2) are two points.
A is a point on the line $x = 1$.
ABC is a right-angled triangle.
BC is the hypotenuse.

Find the possible pairs of coordinates for the point A.

QUESTION SIX

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The distance of a point X (k,2) from the line $y = x + 4$ is four.

Give the possible values of k.

Extra paper for continuation of answers if required.
Clearly number the question.

Assessor's use only

Question number	