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NZQA

NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

Level 1 Mathematics, 2008

90151 Solve straightforward number problems in context

Credits: Three
9.30 am 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.

You should answer ALL the questions in this booklet.

You should show ALL working.

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**	
	Solve straightforward number problems in context.		Solve number problems in context involving manipulation, several steps or reversing processes.		Devise a strategy and solve a number problem.	
	Overall Level of Performance					

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

QUESTION ONE

A salad contains red cabbage, lettuce and spinach in the ratio 4:3:1 by weight.

How many grams of lettuce are in 320 grams of this salad?

Amount of lettuce is _____ grams

QUESTION TWO

A salad contains beans and other vegetables.

$\frac{3}{4}$ of the salad is beans.

$\frac{1}{3}$ of the beans are red beans.

Calculate the fraction of the salad that is made of beans that are **not** red.

Fraction = _____

QUESTION THREE

At the supermarket, Emma usually pays $5.20 for a bag of salad vegetables.
This week, bags of salad vegetables are on "special" for $3.90.

What is the percentage discount on a bag of salad vegetables this week?

Percentage discount is _____ %

QUESTION FOUR

Dan sells tomatoes to the supermarket for $17.60 + GST per box. (GST is 12.5%.)

Calculate the price the supermarket pays Dan for each box of tomatoes, inclusive of GST.

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Supermarket pays $ _____ per box

QUESTION FIVE

A factory produced 1.8×10^9 cans of food last year.
5.4×10^6 of these were cans of fruit salad.

What percentage of the cans of food produced by the factory last year, were cans of fruit salad?

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Percentage = _____ %

QUESTION SIX

The price of a 340 gram can of fruit salad is now $1.90.
The price has increased by 5.5% in the last year.

What was the price of a 340 gram can of fruit salad a year ago?

_____

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Cost a year ago was $ _____

QUESTION SEVEN

A 780 gram can of *Nature's Best* fruit salad costs $3.10.
Fresha fruit salad costs $2.80 for two 340 gram cans.

Decide which brand of fruit salad is cheaper: *Nature's Best* or *Fresha*.

You must show the calculations that support your decision.

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The cheaper brand is _____

QUESTION EIGHT

The ninety students in Happy Valley High School's representative sports teams are organising a Sports Awards Barbeque for 250 people.
The food they need to buy is sausages, bread and tomato sauce.

The school's Board of Trustees will pay 15% of the cost of the food.

The Parents' Association will pay $\frac{1}{4}$ of the cost of the food.

The ninety students will share the balance of the cost of the food.

One kilogram of **sausages** will feed six people.
Sausages are $5 per kg, and the butcher will give the students a 10% discount.
One loaf of **bread** will feed 10 people. Bread costs $2.50 per loaf.
One bottle of **tomato sauce** will be enough for 15 people, and costs $2.80 per bottle.

Calculate how much each student will have to pay to just cover the cost of the food.

You must explain how you calculate your answer.

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Each student will have to pay $ _____

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

Question number