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| **NAME:** | **TEACHER:** |

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**YEAR 9 MATHEMATICS**

**2013 END OF YEAR EXAM**

## Number

### QUESTION AND ANSWER BOOKLET

**Answer ALL questions in the spaces provided in this booklet. Show ALL working.**

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| **Achievement For Assessor’s use only** |
| **Curriculum****Level 3** | **Curriculum****Level 4** | **Curriculum****Level 5** |
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**QUESTION ONE**



If the large square is worth 1, give the shaded portion as:

1. A decimal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. A percentage \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. A fraction in its simplest form

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**QUESTION TWO**

Fill in the missing values:

652 + 363 = 900 + \_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_

= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**QUESTION THREE**

Write these decimal values in order from smallest to largest.

4.3, 3.4, 13.4, 13.35, 4.33, 4.4

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**QUESTION FOUR**

The 110 m hurdles race has 10 hurdles that are evenly-spaced from each other. The first hurdle is placed 13.72 m from the starting line. The distance from last hurdle to the finish line is 14.02 m. How far apart are the hurdles placed?

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**QUESTION FIVE**

The temperature in London one winter’s day was

 -2oC.

1. What is the temperature in Vancouver that day if it is 5 degrees colder than in London?

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1. A New Zealander boasted “to get our temperature, take the London temperature number and multiply by -12.” What is the temperature in New Zealand that day?

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**QUESTION SIX**

Rowena is losing her marbles!

She bought a bag with 48 marbles in it.

She traded ¼ of them to get 4 new ones that she really wanted.

Keeping the new ones separate, she plays with the ones she has left and loses 1/3 of them.

1. How many marbles did she trade to get her 4 new ones?

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1. How many does she still have at the end of her game (including the 4 new ones).

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1. What percentage of her original marbles does she have left?

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**QUESTION SEVEN**

Rowena hopes to save up for some more marbles. She earns $8 pocket money per week. However, she doesn’t want to give up her sweet eating habit (she spends $2.50 per week on sweets). If the bag of designer marbles she wants will cost $18, how many weeks will she need to save in order to buy them?

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**QUESTION EIGHT**

Hinerangi wants to buy a new bike. The bike costs $1300. She earns $15/week at a part time job. There are several options for how she might buy this:

A: Her parents give the bike shop a $200 deposit and then she pays $15/week for 80 weeks (the shop will collect extra money this way).

B: Save up for 10 weeks. The bike will then be on sale for 30% discount. Her parents pay what she can’t afford and she pays them back at $15/week.

C: Save until she can afford the full price, but her parents will give her $1 for every $10 she saves.

Work out the cost and time to pay off the bike for each option.

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