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| --- | --- | --- | --- |
| Name:  Teacher: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | Date:\_\_\_\_\_\_\_\_\_ |
|  | **Year 11 Mathematics**  /40  **Mini test**  **Topic – Measurement**  ***Full working out MUST be shown to get full marks for each question.*** | | |
| **Total Time:** | 45 minutes | /40 | |
| **Weighting:** | 10 % |
| **Equipment:** | To be provided by the student: Pens and Pencils, scientific calculator, A4 page of notes (1 side). | | |

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| **Question 1** *5* ***marks*** |

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Suggest an appropriate area unit for measuring:

1. the area of a postage stamp

1. the area of your desktop
2. the area of your bedroom floor
3. the area of Tasmania
4. the area of a toenail

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| **Question 2**  *4* ***marks*** |

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|  |  |

Fill in the missing numbers:

|  |  |  |  |
| --- | --- | --- | --- |
| km | m | cm | mm |
| 1.2 |  |  |  |
|  |  | 240 |  |
|  | 890 |  |  |
|  |  |  | 1900 |

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| **Question 3** ***2, 1, 1 marks*** |

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Rugby league players aged 6-8 years old play on a field that is 68m long by 30m wide. During training, each player ran 7 laps around the outside of the field.

1. Calculate the distance the players ran in metres

1. Convert your answer from part a to kilometres
2. Calculate the area of the field

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| **Question 4** ***2,2 marks*** |

Find the perimeter of the following shapes:

1. A close-up of a diagram

   Description automatically generated with low confidence
2. A picture containing text, antenna

   Description automatically generated

|  |
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| **Question 5**  *2* ***marks*** |

Find the area of the following shape expressing your answer using the units of:

* 1. km2
  2. m2

A picture containing text

Description automatically generated

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| **Question 6**  *2* ***marks*** |

Mike purchased a 4.2 ha property. Council regulations allow him to have 5 free range chickens for every 100 m2. How many free-range chickens is he allowed?

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| **Question 7** ***3******marks*** |

Find the area of the following shape:

Diagram

Description automatically generated with medium confidence

|  |
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| **Question 8** ***2, 1 marks*** |

Jon is having the driveway and path at his new house covered with patterned concrete. The concrete company will charge $65 per square metre. Each square on the plan represents 1 m2.

1. Estimate the area of the driveway and path.
2. Approximately how much will the concrete company charge Jon?

Chart

Description automatically generated

|  |
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| **Question 9**  *3*  ***marks*** |

The solid below is made up of five cubes of side length 4 cm. What is the volume of the solid?

Shape, rectangle

Description automatically generated

|  |
| --- |
| **Question 10** ***3 marks*** |

Find the volume of this triangular-based prism:

Shape

Description automatically generated

|  |
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| **Question 11**  *2*  ***marks*** |

Sam purchased 2 m2 of material. She needs to cut it into rectangles of area 200 cm2 for a patchwork quilt. This can be done with no waste. How many rectangles can Sam cut out?

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| **Question 12**  *1* ***marks*** |

The capacity of a car engine is quoted as 1800 cc, meaning 1800 cubic centimetres. Write this capacity in litres.

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| **Question 13**  *3*  ***marks*** |

A shipment of wine is being sent to Europe in 1000 L tanks. Enough wine must be sent so 1000 dozen 750 mL bottles can be filled. How many tanks are needed?

**End of Assessment**