**YEAR 11 TEST 5 REVIEW HW CALCULATOR CORE**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Teacher \_\_\_\_\_\_\_\_\_\_**

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| **Transformations** | **/10** | **Inequalities** | **/10** | **Constructions** | **/10** | **Formulae** | **/10** |

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|  | Transformations |  |
| 1. | Reflect the shape in the line *y =* 1 | (2) |
| 2. | $$\left(\genfrac{}{}{0pt}{}{-3}{2}\right)$$Transalte shape T by the vector . Label the triangle ARotate triangle T 180° around the point (1, 0). Label the traingle B | (2)(2) |
| 3. | Enlarge the triangle from the point P by a scale factor of 2 | (2) |
|  | **TOTAL** | **10** |

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|  | Inequalities |  |
| 1. | –1 ≤ *x*< 5 *x* is an integer.Write down all the possible values of *x**……………………………………* | (2) |
| 2. | Write down the inequality shown on the number line..........................................Show the inequality *x <* 3 on the number line below. | (2) |
| 3. | –8 ≤ 2*x* < 2 *x* is an integer.Write down all the possible values of *x**……………………………………* | (2) |
| 4. | Solve the inequality 4*x* + 2 < -2 Show your answer on the number line | (2) |
| 5. | Solve the inequality 6*x* – 11 < 2 *x* + 13 ………………………………….. | (2) |
|  | **TOTAL** | **10** |

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|  | Constructions and Loci |  |
| 1. | Construct a the following triangle using a protractor  5cm | (2) |
| 2. | Construct an equilateral triangle using the line AB as its base. A **B** | (2) |
| 3. | Construct a perpendicular line form AB which goes through the point P  A **B** P  | (2) |
| 4. | A trasmitter is to be built.It must be nearer to Town A than Town B but within 4km of Town C.Use a scale so that one square represents 1km to show the region where the tramsmiter can be built.***C*** | **(4)** |
|  | **TOTAL** | **10** |

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|  | Formulae |  |
| 1. | Make *x* the subject in the formula y = 5*x* - 3*x* = …………………………… | (2) |
| 2. | Make *b* the subject in the formula *a =2(b+c)**b* = …………………………… | (2) |
| 3 | Make *r* the subject in the formula $$p= \frac{4r +3}{2}$$*r* = …………………………… | (2) |
| 4 | If a = 4 b = -3 c = ½ and d = -10Work out the following a) 4b2 b) 4d – 3b  = ………………………………… = ………………………………… | (2) |
| 5 | Complete the following sentence using the words below

|  |  |  |  |
| --- | --- | --- | --- |
| Equation | Expression | Formula | Identity |
| Multiple | Number | Term | Factor |

4*x* is a ………………………………. in the …………………………….. 4*x* + 12 | (2) |
|  | **Total** | **/10** |