**Year 8 Higher Standard: Assessment 2 Revision Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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|  | **Topic 5: Perimeter and Area** | **Mark** |
| 1. | Find the area of the parallelogram and the triangle.Area parallelogram = Area triangle = = ………………… cm2 = ………………… cm2 |  (4) |
| 2. | Find the area of the trapezium. Find the circumference of the circle. Area = ………………… cm2 Circumference = ………………… cm | (2) |
| 3. | a) Given that the perimeter of the rectangle is 22cm, fill in the missing lengths and area.b) What is the total area of the shape? Area = ………………… cm2 | (3)(1) |
|  |  Total  | (10) |

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|  | **Topic 6: Ratio and Proportion** | **Mark** |
| 1. | a) Write the ratio 15 : 20 in its simplest form. ……………….b) Bricks are made by mixing cement and water in the ratio 3 : 4  A builder uses 12 litres of cement.  How much water does he need?  ………………  | (1)(1) |
| 2. | Assim and Julie share £120 in the ratio 3 : 5How much money does each receive? Assim £ ……………… Julie £ ……………… | (2) |
| 3. | Here are the ingredients to make a pasta bake for 8 peoplePasta 200 gTomatoes 300 gGarlic 20 gSausage 150 g1. On Saturday Alison wants to make a pasta bake for 12 people.

 Work out how much of each ingredient she needs.   Pasta ………… g Tomatoes ………… g Garlic ………… g Sausage ………… g1. The next Saturday Alison makes a pasta bake and uses 375 g sausage.

How many people was the pasta bake for? …………………………. | (2)(1) |
| 4. | Julie wants to buy washing up liquid.Suds R Us costs £2.99 for 250 mlWash Up Happy costs £3.99 for 400 ml.Which washing up liquid is better value for money. You must show your working. …………………………. | (3) |
|  |  Total  | (10) |

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|  | **Topic 7: Sequences** | **Mark** |
| 1. | Here is a pattern of squares:a) Complete the table of results:

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| --- | --- | --- | --- | --- | --- |
| Pattern number | 1 | 2 | 3 | 4 | 5 |
| Number of squares |  |  |  |  |  |

b) How many squares are needed for the 20th pattern ? ………………c) Which pattern will have 43 squares? ……………..d) Complete the word formulaNumber of squares =  ………… x Pattern Number - …………  | (1)(1)(2)(1) |
| 2. | Here is a sequence 9 , 13 , 17 , 21 , 25, ……1. Find the rule for the nth term of the sequence ………………………….
2. Calculate the 20th term in this sequence ………………………….
3. Mark thinks that 117 is in the sequence.

 Is Mark correct? …………………………. Give a reason for your answer. ……………………………………………………………………………………………………………………………………………………… ……………………………………………………………………………………………………………………………………………………… | (1)(1) (1) |
| 3. | Find the nth term for the following sequence35 , 32 , 29 , 26, 23, ………  …………………………. | (2) |
|  |  Total  | (10) |

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|  | **Topic 8: Probability** | **Mark** |
| 1. | Matthew has numbered cards **2, 3, 5, 6, 13, 17, 21** in a bag.He organises the cards depending on whether the number is an **EVEN** or **PRIME** number and puts the information in a Venn diagram.a) Complete the Venn diagram below to organise Matthews’ numbers.b) Matthew picks a card at random from the bag.  What is the probability the number is even ? …………………………. | (2)(1) |
| 2. | The probability it will rain tomorrow is **0.93**What is the probability that it will not rain? …………………………. | (1) |
| 3. | Timmy throws a fair six sided die **1200** times. How many times would he expect to throw a **5** ? …………………………. | (1) |
| 4. | a) Complete the tree diagram to show the outcomes when a **2p coin** and a **10p coin** are thrown.b) What is the probability of throwing a tail followed by a head ? ………….c) What is the probability of throwing two tails ? …………. | (1)(1)(1) |
| 4. | 50 students are in Holmes college.There are 27 boys.19 boys do not wear glasses.5 girls do wear glasses. a) Complete the frequency tree.The teacher chooses a student at random.b) What is the probability that the student is a girl who wears glasses ? ………….The teacher chooses a boy.c) What is the probability the boy wears glasses? …………. | (2)(1)(1) |
|  |  Total  | (12) |