**Year 8 Core: Assessment 2 Revision HW (Non-Calculator) Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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|  | **Topic 5: Perimeter and Area** |  |
| 1. | Find the perimeter of this shape:  ………………………………………………………… cm  8.3 cm  5.2 mm  6.8 cm | (2) |
| 2. | Find the area of each shape:  6 cm  5 cm  4 cm    80 mm  8 cm    …………………………………… cm² …………………………………… cm² | (2) |
| 3. | Find the area of this triangle:  4 cm  70 mm ………………………………… cm² | (2) |
| 4. | Field A is a rectangle with sides of 30 m and 70 m  Field B is a square with the same **perimeter** as Field A.    What is the length of each side on field B?  You **must** show your working.      ……………………………… cm | (2) |
| 5. | Find the **area** of this shape. Show all of your working.  3 cm  10 cm  6 cm  8cm  Area = ……………………… cm2 | (2) |

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|  | **Topic 6: Ratio and Proportion** | Mark |
| 1. | Write the ratio of shaded to unshaded circles  🌕🌕●●●🌕🌕●●●  …………………………… | (1) |
| 2. | Write the ratio 15 : 20 in its simplest form  …………………………… | (1) |
| 3. | There are 12 girls and 20 boys in a class.  Write the ratio of the number of girls to the number of boys. Give your ratio in its simplest form.  …………………………… | (2) |
| 4. | Share £35 between Paul and Fred in the ratio 2 : 3  Paul = £ ……………… Fred = £ ……………… | (2) |
| 5. | A recipe for cottage pie for 4 people uses 800g of potato.  How much potato would you need to make a pie for 8 people? …………………… g  How much potato would you need to make a pie for 6 people? …………………… g | (2) |
| 6. | If 6 books cost £24, how much does 1 book cost?  £ ………………  How much would 5 books cost?  £ ……………… | (2) |

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|  | **Topic 7: Sequences** | Mark |
| 1. | Write down the rule to get to the next term and fill in the missing terms  2, 5, 8, ……, ……, …… Rule: …………………… | (2) |
| 2. | Write down the rule to get to the next term and fill in the missing terms  4, 8, 16, ……, ……, …… Rule: …………………… | (2) |
| 3. | Here is a pattern made with grey square tiles and white square tiles.     |  |  |  |  |  | | --- | --- | --- | --- | --- | | Pattern Number | 1 | 2 | 3 | 4 | | Total Number of Tiles | 4 | 6 | 8 |  |   a) How many tiles make Pattern number 12?  ……………………  b) How many tiles will there be in the nth term?  …………………… | (1)  (2) |
| 4. | Find the nth term of this sequence:  5, 8, 11, 14, 17  …………………… | (2) |
| 5. | Write down the first three terms of the sequence 3n + 1  ………… , ………… , ………… | (1) |

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|  | **Topic 8: Probability** | Mark |
| 1. | Choose from the following words **impossible unlikely even chance likely certain** Getting Tails when you toss a coin …………………………  Rolling a number less than 2 on a dice ………………………… | (2) |
| 2. | Place an arrow where each probability lies.   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  | |  |  | |  |  | |  |  | | **0** |  | **¼** | |  | **½** | |  | **¾** | | **1** |   a) Next year will have 12 months  b) Choosing the letter L from the work UNLIKELY | (2) |
| 3. | In a class 10 pupils have brown hair, 8 have blonde hair and 3 have black hair.  What is the probability of picking:    a) a person with blonde hair? ……………  b) a person who does not have brown hair? …………… | (2) |
| 4. | A spinner has four sections A, B, C and D.  The table shows the probabilities of the spinner landing on A, B or C.     |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | **Outcome** | A | B | C | D | |  | **Probability** | 0.2 | 0.3 | 0.15 |  |   Work out the probability of landing on D. …………………… | (2) |
| 5. | Complete the list of possible outcomes when a dice is rolled and a coin is tossed at the same time.  (Heads, 1) ………………………………………………………………………………………………………………………………  ………………………………………………………………………………………………………………………………………………… | (2) |