**Year 8 Foundation: Assessment 2** Revision Homework (Non-Calc) Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_

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|  | **Topic 5: Area and Perimeter** | **Mark** |
| 1. | Complete the following:  30 mm = \_\_\_\_\_\_\_\_ cm 2.5 cm = \_\_\_\_\_\_\_\_ mm  5 km = \_\_\_\_\_\_\_\_ m 4750 m = \_\_\_\_\_\_\_\_ km | **4** |
| 2. | Here is a shape made up of centimetre squares.   |  |  |  | | --- | --- | --- | |  |  |  | |  |  |  | |  |  |  |   a) Calculate the area of the shape. …………………………  b) Calculate the perimeter of the shape. ………………………… | **2** |
| 3. | Calculate the perimeter of the triangle.  15 cm  60 mm  18 cm    Perimeter = ………………………… cm | **1** |
| 4. | Calculate the area of the shapes.  4 cm  6 cm  5 m  8 m    Area = ………………………… Area = ………………………… | **2** |
| 5. | Find the missing height, *h*, of the rectangle if the area of the shape is 48 cm².  *h* cm  12 cm  Height = ……………………… | **1** |

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|  | **Topic 6: Ratio** | **Mark** |
| 1. | A bag contains 4 blue marbles and 3 red marbles.  What is the ratio of blue marbles to red marbles?  ………………………… | **1** |
| 2. | Shade the boxes so that the ratio of shaded to unshaded is 1 : 3.   |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  |  | | **1** |
| 3. | Write the following ratios in their simplest form.  3 : 9 18 : 12  …………………………… …………………………… | **2** |
| 4. | A pet shop has 16 hamsters and 12 gerbils.  Write the ratio of hamsters to gerbils.  Leave your answer in it’s simplest form.  …………………………… | **2** |
| 5. | Here is a recipe for hot chocolate. Write a recipe to make  Makes 2 6 hot chocolates.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Hot water | 400 ml |  | Hot water |  | | Milk | 50 ml |  | Milk |  | | Cocoa powder | 8 teaspoons |  | Cocoa powder |  | | Marshmallows | 30 g |  | Marshmallows |  | | **2** |
| 6. | Five pens cost £20.  a) What is the cost of 1 pen? ……………………………  b) What is the cost of 4 pens? …………………………… | **2** |
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|  | **Topic 7: Sequences** | **Mark** |
| 1. | Continue the sequences to find the next 3 terms:  a) 5, 9, 13, 17, …………, …………, …………  b) 45, 39, 33, 27, …………, …………, …………  c) -3, -5, -7, -9, …………, …………, ………… | **3** |
| 2. | Continue the sequences to find the next 2 terms:  a) 2, 4, 8, 16, ………… , …………  b) 800, 400, 200, 100, ………… , ………… | **2** |
| 3. | Find the missing terms in the sequences and find the rule:  a) 4, 7, 10, ………… , ………… Rule: ……………………  b) 5, 10, ………… , 40, ………… Rule: ……………………  c) ………… , ………… , 0, -4, -8 Rule: …………………… | **6** |
| 4. | Write the first 5 terms of the following sequences:  a) First term = 5 Rule: Add 9  5, ……………… , ……………… , ……………… , ………………  b) First term = 1 Rule: Multiply by 10  1, ……………… , ……………… , ……………… , ……………… | **2** |
| 5. | Here is a sequence of rectangles:   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  |   a) Draw the next pattern in the sequence.  b) How many rectangles will be in the 5th term of the sequence?  ...............  c) How many rectangles will be in the 6th term of the sequence?  ............... | **3** |

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|  | **Topic 8: Probability** | **Mark** |
| 1. | List the outcomes when a coin is flipped.  ………………………………………… | **1** |
| 2. | Use a word to describe the probability of the following events:  a) I will turn into a werewolf at midnight.  …………………………………………  b) Picking a green marble out of a bag of 3 green marbles and 1 red marble.  ………………………………………… | **2** |
| 3. | On the probability line mark with an arrow and letter the following probabilities:  Choosing the letter S from the word SUCCESS. (Label A).  The probability of rolling a 1 on an ordinary die (Label B).  The probability of rolling a number less than 5 on an ordinary dice (Label C). | **3** |
| 4. | Complete the spinner so that you are more likely to land on an odd number than an even number. | **1** |
| 5. | A bag contains 3 red counters, 2 blue counters and 5 green counters.  I pick a counter out of the bag at random.  What is the probability that it is:  a) green? ………………………  b) Black? ………………………  c) red or green? ………………………  d) not blue? ……………………… | **4** |