**Year 7 Enhanced: Assessment 1 Revision Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |
| --- | --- | --- |
|  | Topic 1: Negative numbers | **Mark** |
| 1. | Calculate:a) -10 + - 5 = ………… b) 8 - - 10 = ………… c) -7 + - 4 - - 9 = ………… | **3** |
| 2. | What is –7 added to –3? Circle your answer. –4 +4 +10 +21 –10 | **1** |
| 3. | Calculate:1. -6 x -4 = ………… b) 3 x ………… = -21 c) -35 ÷ ………… = -5
 | **3** |
| 4. |  The table shows temperatures at midnight and midday on one day in five cities.

|  |  |  |
| --- | --- | --- |
| **City** | **Midnight temperature** | **Midday temperature** |
| Belfast | −3 °C | 4 °C |
| Cambridge | −1 °C | 4 °C |
| Edinburgh | −7 °C | −1 °C |
| Leeds | −6 °C | 3 °C |
| London | −2 °C | 6 °C |

 (a) Which city had the lowest midnight temperature?........................................(b) How many degrees higher was the midnight temperature in Cambridge than the midnight temperature in Leeds?......................... °C(c) Which city had the greatest rise in temperature from midnight to midday?........................................ | **3** |

|  |  |  |
| --- | --- | --- |
|  | Topic 2: Algebraic manipulation | Mark |
| 1. |  If a = 7, calculate the value of:1. 4a + 1 ……………
2. 3(a + 4) ……………
3. a² + a ……………
 | 3 |
| 3. | (a) Simplify *a + a + a + a*.....................(b) Simplify 3 × *b* × 4.....................(c) Simplify completely 4*a* + 5*b* – 2*a* + b.....................................  | 3 |
| 2. | a)Expand *a*(*a* – 6)....................................b) *y* = 5*x* – 3 Find the value of *y* when *x* = 4*y* *=* .............................. | 11 |
| 4. | The cost, in pounds, of hiring a car can be worked out using this rule.

|  |
| --- |
| Add 3 to the number of days’ hireMultiply your answer by 10 |

(a) Work out the cost of hiring a car for 4 days.£…………………… Bishen hired a car. The cost was £120(b) Work out the number of days for which Bishen hired the car.……………………… | 2 |

|  |  |  |
| --- | --- | --- |
|  | Topic 3: Averages | Mark |
| 1. | Peter rolled a 6-sided dice ten times.Here are his scores. 3 2 4 6 3 3 4 2 5 4(a) Work out the median of his scores..................................(b) Work out the mean of his scores.................................. | 3 |
| 2. | Here are the temperatures in 6 cities.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 5 | 19 | -10 | 14 | -22 | 12 |

(a) Work out the range of these temperatures......................................(b) Work out the mean temperature...................................... | 3 |
| 3. | Rosie had 10 boxes of drawing pins. She counted the number of drawing pins in each box. The table gives information about her results.

|  |  |  |
| --- | --- | --- |
| Number of drawing pins | Frequency |  |
| 29 | 2 |  |
| 30 | 5 |  |
| 31 | 2 |  |
| 32 | 1 |  |

(a) Write down the modal number of drawing pins in a box..................................(b) Work out the mean number of drawing pins in a box.................................. | 1 3 |

|  |  |  |
| --- | --- | --- |
|  | Topic 4: Number properties | Mark |
| 1. | Using only the numbers in the cloud, write down(a) all the multiples of 6, …………………………….(b) all the square numbers, …………………………….(c) all the factors of 12, …………………………….(d) all the cube numbers. ……………………………. | 4 |
| 2. | Here is a list of numbers. 8 15 23 27 32 33From the numbers in the list, write down a number that is prime. …………………… | 1  |
| 3. | (a) Express 84 as a product of its prime factors.................................(b) Find the Highest Common Factor (HCF) of 84 and 35................................ | 3 |
| 4. | Work out (i) 10 – 2 × 3 (ii) 16 ÷ (2 × 4)  ………………………………… ………………………………… ………………………………… ………………………………… | 2 |