**Year 9 Core Standard: Assessment 1 Revision Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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|  | Topic 1: Negative numbers | Mark |
| 1. | Work out the following1. 4 – 5 = ………… b) -3 + 7 = ………… c) -6 – 3 = …………

d) -7 + 10 = ………… e) 4 - -6 + -2 = ………… f) -4 + -2 - -3 = …………g) 8 x -12 = ………… h) -20 ÷ -4 = ………… i) (-4)2 = ………… | (9) |
| 2. | Complete this addition table.

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| --- | --- | --- | --- |
| **+** | **3** |  | **-4** |
| **-2** | 1 |  |  |
| **4** |  | -3 | 0 |
|  | 8 |  | 1 |

 | (5) |
| 3. | Find the missing number in these calculation1. -4 x -5 = ………… b) -8 ÷ 2 = ………… c) -6 – …………= -9

d) …………- -10 = 12 e) 4 x ………… = -24 f) ………… ÷ -5 = 7  | (6) |

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|  | Topic 2: Algebraic manipulation | Mark |
| 1. | Simplify:a) 3*c + c +* 2*c* ………………………b) 5*e - f* + 2e + 3*f* ………………………c) 5*r* x 3*t* ………………………d) 2*a* x3*a* ………………………e) 3(*a* + 5*b* – 8) ……………………… | (1)(2)(1)(1)(2) |
| 2. |  *p* = 3 *r* = -5a) Work out the value of 6– 2r ………………………b) Work out the value of *pr* + *r* ………………………c) Work out the value of 3(*p*2 + 1) ……………………… | (2)(2)(2) |
| 3. | In the diagram, all measurements are in centimetres.The lengths of the sides of the quadrilateral are2*r* + 52*r*4*r* – 3*r*Find an expression, in terms of *r*, for the perimeter of the quadrilateral.Give your expression in its simplest form.……………………… | (2) |
| 4. | You can use this rule to work out the total charge for hiring a cement mixer.

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| **Total charge = £30 plus £7 for each hour of hire** |

On Monday, Sally hired a cement mixer for 4 hours.a) Work out Sally’s total charge.£ ………………………On Tuesday, Tom hired a cement mixer.Tom’s total charge was £51b) Work out for how many hours Tom hired the cement mixer.……………………… hours | (2)(3) |

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|  | 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, 4a) Work out the median of his scores. ………………………b) Work out the range of his scores  ………………………**c**) Work out the mean of his scores. ……………………… | (2)(1)(2) |
| 2. | 20 students scored goals for the school hockey team last month.The table gives information about the number of goals they scored.

|  |  |  |
| --- | --- | --- |
| **Goals scored** | **Frequency** |  |
| 0 | 2 |  |
| 1 | 7 |  |
| 2 | 3 |  |
| 3 | 5 |  |
| 4 | 3 |  |
| **Total** |  |  |

 Work out the mean number of goals scored ……………………… | (3) |
| 3. | Write down four numbers with a mean of 6 and a range of 10. ………… ………… ………… ………… | (2) |

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|  | Topic 4: Number properties | Mark |
| 1. | a) Work out the Highest Common Factor (HCF) of 16 and 24.……………………… b) Work out the Lowest Common Multiple (LCM) of 30 and 18.……………………… | (2)(2) |
| 2. | a) Express 35 and 84 as a products of their prime factors. 35 = ……………………… 84 = ……………………… b) Find the Highest Common Factor (HCF) of 84 and 35……………………… c) Find the Lowest Common Multiple (LCM) of 84 and 35 ……………………… | (4)(1)(1) |
| 3. | Work outa) 2 × 3 + 4 ………………………b) 10 – 2 × 52 ……………………… c) (19 + 5) ÷ 23  ……………………… | (1)(2)(2) |
| 4. | Add brackets ( ) to make this statement correct. 6 - 2 × 5 + 1 = 24 | (2) |