**Paper 2 Reasoning Paper number 1**

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| Name : | Class : | Date : |

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| Mark : | /20 | % |

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| **1)** Complete the number sentence      a)      50 - ......... = 30     b)      3  $×$ 94 = ......... + 12 | [2]   |
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| **2)** A supermarket has 534 tubes of sweets at the start of the day. During the day, 114 tubes are sold and a further 162 tubes are delivered. How many tubes of sweets are there at the end of the day?     ......... |

     | [1]   |
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| **3)** Luca recorded the temperature ( °C) at 9 am outside his house on the 1st of each month for 6 months.

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| --- | --- | --- | --- | --- | --- | --- |
| **Month** | November | December | January | February | March | April |
| **Temperature** |  $-2$ °C |  $-6$ °C |  $-9$ °C |  $5$ °C |  $15$ °C |  $11$ °C |

Find:a) the highest temperature     ...... °Cb) the lowest temperature     ...... °Cc) the difference in temperature between the 1st of December and the 1st of April     ...... °C |

      | [1]   |
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| **4)** Complete the table |

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| **Fraction** | $\frac{1}{2}$ | $\frac{1}{5}$ | $\frac{3}{4}$ |
| **Equivalent Fraction** |  $\frac{5}{10}$ |  |  |

 | [1]   |
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| **5)** How many hours are there in 720 minutes?     ......... hours |

      | [1]   |
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| **6)** Isabelle has an appointment at 11:31.How many more minutes is this from the time shown below?http://www.mathster.com/course/simgs/90254605090_1.png     ......... minutes |

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| **7)** What number is a multiple of **both** 4 and 6, but ends in a 2?     ......... |

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| **8)** Use the clues to find out what number each picture stands for.

|  |  |  |  |
| --- | --- | --- | --- |
|   |   |   | Sum of row |
| http://www.mathster.com/assessment/qimages/bison_2.png | http://www.mathster.com/assessment/qimages/bison_2.png | http://www.mathster.com/assessment/qimages/bison_2.png | 9 |
| http://www.mathster.com/assessment/qimages/bison_2.png | http://www.mathster.com/assessment/qimages/duck_2.png | http://www.mathster.com/assessment/qimages/duck_2.png | 13 |
| http://www.mathster.com/assessment/qimages/frog_2.png | http://www.mathster.com/assessment/qimages/duck_2.png | http://www.mathster.com/assessment/qimages/bison_2.png | 9 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| http://www.mathster.com/assessment/qimages/bison_2.png |  = ....... | http://www.mathster.com/assessment/qimages/duck_2.png |  = ....... | http://www.mathster.com/assessment/qimages/frog_2.png |  = ....... |

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      | [1]   |
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| **9)** Draw a rectangle that has 10 centimetre squares inside it.One 5 cm length has been drawn for you on the grid of 1 cm squares.

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| http://www.mathster.com/course/simgs/90254605090_2.png |

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      | [1]   |
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| **10)** Which calendar year is represented by the following Roman numerals?  |

           MMII     ......... | [1]   |
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| **11)** Write in the missing numbershttp://www.mathster.com/course/simgs/90254605090_3.png |

            | [1]   |
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| **12)** Match the pictures with the words |

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| **1.**  | **http://www.mathster.com/course/simgs/90254605090_4.png** | **A.**  | **parallel** |
| **2.**  | **http://www.mathster.com/course/simgs/90254605090_5.png** | **B.**  | **vertical** |
| **3.**  | **http://www.mathster.com/course/simgs/90254605090_6.png** | **C.**  | **perpendicular** |
| **4.**  | **http://www.mathster.com/course/simgs/90254605090_7.png** | **D.**  | **horizontal** |

 | [1]   |
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| **13)** Round the numbers in the table. |

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| **Number** | **Nearest 10** | **Nearest 100** |
| 432 | 430 |  |
| 474 |  |  |
| 835 |  |  |
| 799 |  |  |

 | [1]   |
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| **14)** Find the value of  $x$ and  $y$.http://www.mathster.com/course/simgs/90254605090_8.png      $x$ = ..... °           $y$ = ..... ° |

      | [1]   |
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| **15)** Two shops, Lidl and Tesco, both sell microwave meals.     http://www.mathster.com/course/simgs/90254605090_9.pngAt which shop are the microwave meals the best value for money?     Show all your working below. |

      | [1]   |
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| **16)** Find the mean of the data given below. |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3  | 4  | 7  | 1  | 1  | 8  |  |  |  |  |  |  |

     mean = ......... | [1]   |
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| **17)** The pie chart below shows how a group of 24 students usually travel to school *(angles are shown in brackets)*.http://chart.apis.google.com/chart?cht=p&chd=t:4,12,8&chs=400x200&chl=car%20%2860%29%7Cbike%20%28180%29%7Ctaxi%20%28120%29a) What fraction of the people travel by car?     .........b) How many students travel by bike?     .........c) How many more students travel by bike than taxi?     ......... |

      | [1]   |
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| **18)** The weighing scales show the mass of 8 pineapples.http://www.mathster.com/course/simgs/90254605090_10.pngHow much does one pineapple weigh? ....... g |

      | [1]   |
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| **19)** Henry has 12 buttons. He gives his friend  $\frac{3}{4}$ of them. Then he gives  $\frac{1}{3}$ of the rest to his brother. |

      How many buttons does he have left?     ......... buttons | [1]   |

**Solutions for the assessment KS2 NC Test - Paper 2 Reasoning**

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| **1)**  a) 20 |      b) 270 |
| **2)** 582 tubes | **3)** a) highest = 15 °Cb) lowest = -9 °Cc) difference = 17 °C |
| **4)** e.g.  $\frac{2}{10}$,  $\frac{6}{8}$ | **5)** 720 minutes = 12 hours |
| **6)** 21 minutes | **7)** 12 |
| **8)** 3, 5, 1 |  |
| **9)** http://www.mathster.com/course/simgs/90254605090_11.png |
| **10)** 2002 | **11)** missing numbers are 3.75 and 4.5 |
| **12)** 1 D, 2 B, 3 A, 4 C | **13)** 432 = 430, **400**474 = **470**, **500**835 = **840**, **800**799 = **800**, **800** |
| **14)**  $x$ = 70 °,  $y$ = 57 ° | **15)** 5.39 $×$100  $÷$ 7 = 77p3.95 $×$100  $÷$ 5 = 79p77 $<$79, so Lidl is cheaper |
| **16)** Mean = 4 | **17)** a) 1/6, b) 12, c) 4 |
| **18)** 325 g | **19)** 2 |