**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] |
| |  | | --- | | **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] |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **3)** Luca recorded the temperature ( °C) at 9 am outside his house on the 1st of each month for 6 months.   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **Month** | November | December | January | February | March | April | | **Temperature** | °C | °C | °C | °C | °C | °C |   Find: a) the highest temperature     ...... °C  b) the lowest temperature     ...... °C  c) the difference in temperature between the 1st of December and the 1st of April     ...... °C | | [1] |
| |  | | --- | | **4)** Complete the table |      |  |  |  |  | | --- | --- | --- | --- | | **Fraction** |  |  |  | | **Equivalent Fraction** |  |  |  | | [1] |
| |  | | --- | | **5)** How many hours are there in 720 minutes?     ......... hours | | [1] |
| |  | | --- | | **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 | | [1] |
| |  | | --- | | **7)** What number is a multiple of **both** 4 and 6, but ends in a 2?     ......... | | [1] |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **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 | = ....... | | | [1] |
| |  |  | | --- | --- | | **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.   |  | | --- | | http://www.mathster.com/course/simgs/90254605090_2.png | | | [1] |
| |  | | --- | | **10)** Which calendar year is represented by the following Roman numerals? |              MMII     ......... | [1] |
| |  | | --- | | **11)** Write in the missing numbers http://www.mathster.com/course/simgs/90254605090_3.png | | [1] |
| |  | | --- | | **12)** Match the pictures with the words |      |  |  |  |  | | --- | --- | --- | --- | | **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] |
| |  | | --- | | **13)** Round the numbers in the table. |      |  |  |  | | --- | --- | --- | | **Number** | **Nearest 10** | **Nearest 100** | | 432 | 430 |  | | 474 |  |  | | 835 |  |  | | 799 |  |  | | [1] |
| |  | | --- | | **14)** Find the value of   and  .  http://www.mathster.com/course/simgs/90254605090_8.png         = ..... °            = ..... ° | | [1] |
| |  | | --- | | **15)** Two shops, Lidl and Tesco, both sell microwave meals.      http://www.mathster.com/course/simgs/90254605090_9.png At which shop are the microwave meals the best value for money?      Show all your working below. | | [1] |
| |  | | --- | | **16)** Find the mean of the data given below. |      |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 3 | 4 | 7 | 1 | 1 | 8 |  |  |  |  |  |  |        mean = ......... | [1] |
| |  | | --- | | **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%29  a) 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] |
| |  | | --- | | **18)** The weighing scales show the mass of 8 pineapples.   http://www.mathster.com/course/simgs/90254605090_10.png How much does one pineapple weigh? ....... g | | [1] |
| |  | | --- | | **19)** Henry has 12 buttons. He gives his friend   of them. Then he gives   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**

|  |  |
| --- | --- |
| **1)**  a) 20 | b) 270 |
| **2)** 582 tubes | **3)** a) highest = 15 °C b) lowest = -9 °C c) difference = 17 °C |
| **4)** e.g.  , | **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)**   = 70 °,   = 57 ° | **15)** 5.39 100   7 = 77p 3.95 100   5 = 79p 77 79, so Lidl is cheaper |
| **16)** Mean = 4 | **17)** a) 1/6, b) 12, c) 4 |
| **18)** 325 g | **19)** 2 |