**Histograms**

|  |  |  |
| --- | --- | --- |
| Name : | Class : | Date : |

|  |  |  |
| --- | --- | --- |
| Mark : | /7 | % |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1)** The table below shows the heights of 20 people.Complete the table to show the frequency densities, rounding your answer to 1 decimal place.

|  |  |  |
| --- | --- | --- |
| Height | Frequency | Frequency Density |
| 140  $\leq $ h  $<$ 145 | 3 |  |
| 145  $\leq $ h  $<$ 155 | 7 |  |
| 155  $\leq $ h  $<$ 165 | 5 |  |
| 165  $\leq $ h  $<$ 180 | 12 |  |

      | [1]   |
| **2)** The histogram below shows the distribution of heights (cm) of 900 people.Complete the table to show the frequency density and frequency for each class.

|  |
| --- |
|   |
| http://www.mathster.com/course/simgs/26431389864_1.png |   |   |
|   |

|  |  |  |
| --- | --- | --- |
| Height | Frequency Density | Frequency |
| 140  $\leq $ h  $<$ 145 |  |  |
| 145  $\leq $ h  $<$ 155 |  |  |
| 155  $\leq $ h  $<$ 165 |  |  |
| 165  $\leq $ h  $<$ 180 |  |  |

 |

      | [1]   |
| **3)** The histogram below shows the distribution of heights (cm) of 1000 people.Complete the table to show the frequency for each class.

|  |
| --- |
|  |
| http://www.mathster.com/course/simgs/26431389864_2.png |   |   |
|   |

|  |  |
| --- | --- |
| Height | Frequency |
| 140  $\leq $ h  $<$ 150 |  |
| 150  $\leq $ h  $<$ 165 |  |
| 165  $\leq $ h  $<$ 170 |  |
| 170  $\leq $ h  $<$ 180 |  |

 |

      | [1]   |
| **4)** The table below shows the height, in metres, of 700 trees.Use the table to fill in the missing bar in the histogram.

|  |
| --- |
|  |
| http://www.mathster.com/course/simgs/26431389864_3.png |   |   |
|   |

|  |  |
| --- | --- |
| Height | Frequency |
| 0  $\leq $ h  $<$ 10 | 188 |
| 10  $\leq $ h  $<$ 25 | 265 |
| 25  $\leq $ h  $<$ 30 | 94 |
| 30  $\leq $ h  $<$ 40 | 153 |

 |

      | [1]   |
| **5)** The table below shows the heights of 900 people. Calculate the frequency densities for each class and construct a histogram.

|  |  |  |
| --- | --- | --- |
| Height | Frequency | Frequency Density |
| 140  $\leq $ h  $<$ 145 | 100 |  |
| 145  $\leq $ h  $<$ 160 | 343 |  |
| 160  $\leq $ h  $<$ 170 | 213 |  |
| 170  $\leq $ h  $<$ 180 | 244 |  |

      | [1]   |
| **6)** The histogram below shows the distribution of weekly salary ($) of 800 workers.Complete the table to show the frequency for each class.

|  |
| --- |
|  |
| http://www.mathster.com/course/simgs/26431389864_4.png |   |   |
|   |

|  |  |
| --- | --- |
| Height | Frequency |
| 140  $\leq $ h  $<$ 145 |  |
| 145  $\leq $ h  $<$ 155 |  |
| 155  $\leq $ h  $<$ 165 |  |
| 165  $\leq $ h  $<$ 180 |  |

 |

      | [1]   |
| **7)** The incomplete table and histogram give some information about weekly salary ($) of 800 workers.Use the information in the histogram to complete the table and hence find the value of the frequency density for the missing bar in the histogram.

|  |
| --- |
|  |
| http://www.mathster.com/course/simgs/26431389864_5.png |   |   |
|   |

|  |  |
| --- | --- |
| Height | Frequency |
| 140  $\leq $ h  $<$ 150 | 220 |
| 150  $\leq $ h  $<$ 165 | 210 |
| 165  $\leq $ h  $<$ 170 |  |
| 170  $\leq $ h  $<$ 180 |  |

 |

      | [1]   |

**Solutions for the assessment Histograms**

|  |  |
| --- | --- |
| **1)** 0.6,0.7,0.5,0.8 | **2)** fd: 21,23,22,23frequency: 106,232,220,342 |
| **3)** 246,410,116,228 |  |
| **4)** http://www.mathster.com/course/simgs/26431389864_6.png |
| **5)** 20,22.9,21.3,24.4http://www.mathster.com/course/simgs/26431389864_7.png |
| **6)** 93,204,208,295 |  |
| **7)** Tables values are: 150, 220Frequency density of missing bar is 22http://www.mathster.com/course/simgs/26431389864_8.png |