**Histograms**

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| --- | --- | --- |
| 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  $<$ 160 | 14 |  |
| 160  $\leq $ h  $<$ 170 | 4 |  |
| 170  $\leq $ h  $<$ 180 | 6 |  |

      | [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.

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|   |
| http://www.mathster.com/course/simgs/117472844000_1.png |   |   |
|   |

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

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      | [1]   |
| **3)** The histogram below shows the distribution of weekly salary ($) of 1000 workers.Complete the table to show the frequency for each class.

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|  |
| http://www.mathster.com/course/simgs/117472844000_2.png |   |   |
|   |

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

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      | [1]   |
| **4)** The table below shows the height, in metres, of 800 trees.Use the table to fill in the missing bar in the histogram.

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|  |
| http://www.mathster.com/course/simgs/117472844000_3.png |   |   |
|   |

|  |  |
| --- | --- |
| Height | Frequency |
| 0  $\leq $ h  $<$ 5 | 94 |
| 5  $\leq $ h  $<$ 15 | 214 |
| 15  $\leq $ h  $<$ 25 | 179 |
| 25  $\leq $ h  $<$ 40 | 313 |

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      | [1]   |
| **5)** The table below shows the heights of 800 people. Calculate the frequency densities for each class and construct a histogram.

|  |  |  |
| --- | --- | --- |
| Height | Frequency | Frequency Density |
| 140  $\leq $ h  $<$ 150 | 212 |  |
| 150  $\leq $ h  $<$ 165 | 295 |  |
| 165  $\leq $ h  $<$ 170 | 101 |  |
| 170  $\leq $ h  $<$ 180 | 192 |  |

      | [1]   |
| **6)** 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/117472844000_4.png |   |   |
|   |

|  |  |
| --- | --- |
| Height | Frequency |
| 140  $\leq $ h  $<$ 145 |  |
| 145  $\leq $ h  $<$ 160 |  |
| 160  $\leq $ h  $<$ 170 |  |
| 170  $\leq $ h  $<$ 180 |  |

 |

      | [1]   |
| **7)** The incomplete table and histogram give some information about weekly salary ($) of 700 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.

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|  |
| http://www.mathster.com/course/simgs/117472844000_5.png |   |   |
|   |

|  |  |
| --- | --- |
| Height | Frequency |
| 140  $\leq $ h  $<$ 145 | 170 |
| 145  $\leq $ h  $<$ 155 | 180 |
| 155  $\leq $ h  $<$ 165 |  |
| 165  $\leq $ h  $<$ 180 |  |

 |

      | [1]   |

**Solutions for the assessment Histograms**

|  |  |
| --- | --- |
| **1)** 0.6,0.9,0.4,0.6 | **2)** fd: 23,20,24,23frequency: 117,200,244,339 |
| **3)** 236,378,125,261 |  |
| **4)** http://www.mathster.com/course/simgs/117472844000_6.png |
| **5)** 21.2,19.7,20.2,19.2http://www.mathster.com/course/simgs/117472844000_7.png |
| **6)** 113,397,228,262 |  |
| **7)** Tables values are: 220, 130Frequency density of missing bar is 34http://www.mathster.com/course/simgs/117472844000_8.png |