**MST 1102- Introduction to Statistics WkSheet 4**

**(Last Name, First Name): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Data Presentation II**

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| **Class** | **Class** | **Width** | **Midpoint** | **Frequency** |
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1. Complete the table below by inserting the missing boundaries, widths and midpoints. **[6 marks]**
2. Use the frequency distribution table shown to the right to answer the questions below.

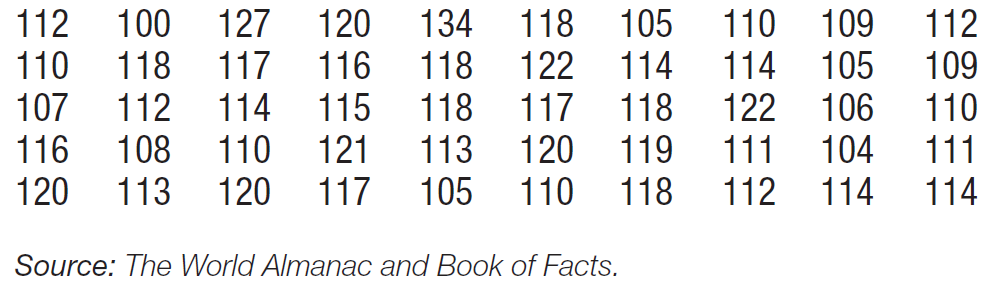
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| **Weight** | **Frequency** |
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1. Is the frequency table group or ungroup? Explain. **[2 marks]**

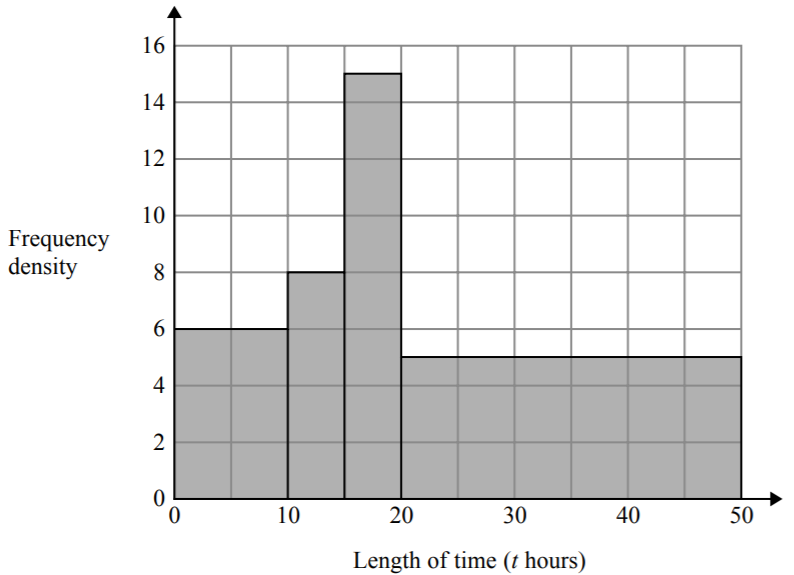
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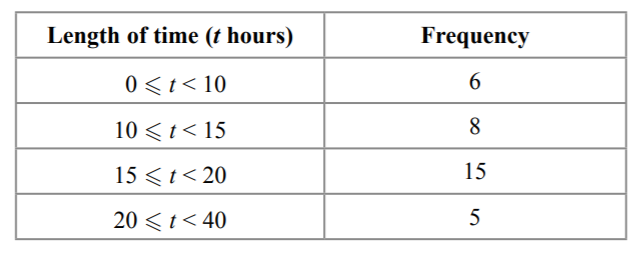
1. What is the lower class limit of the class? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **[1 mark]**
2. What is the upper class limit of the class? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **[1 mark]**
3. What is the lower class boundary of the class? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **[1 mark]**
4. What is the upper class boundary of the class? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **[1 mark]**
5. What is the width of the final class? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **[1 mark]**
6. What is the midpoint of the class? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **[1 mark]**
7. These data represent the record high temperatures in degrees Fahrenheit (oF) for each of the 50 states. Construct a grouped frequency distribution for the data. [Headings: Age (class), boundaries, tally, frequency] **[7 marks]**



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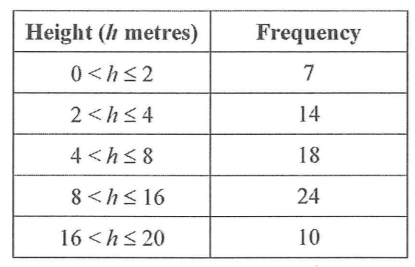
1. Asaad recorded the lengths of time, in hours, that some adults watched TV last week. The table shows the information about his results. Asaad made some mistakes when he drew a histogram for this information. Write down two mistakes Asaad made.



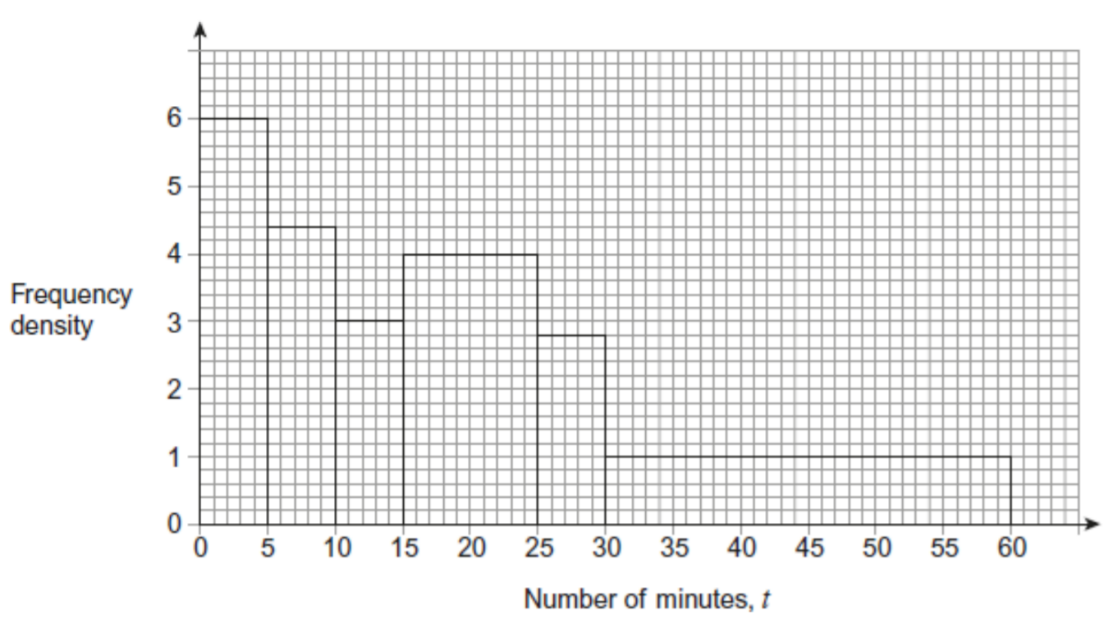
Mistake 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **[1 mark]**

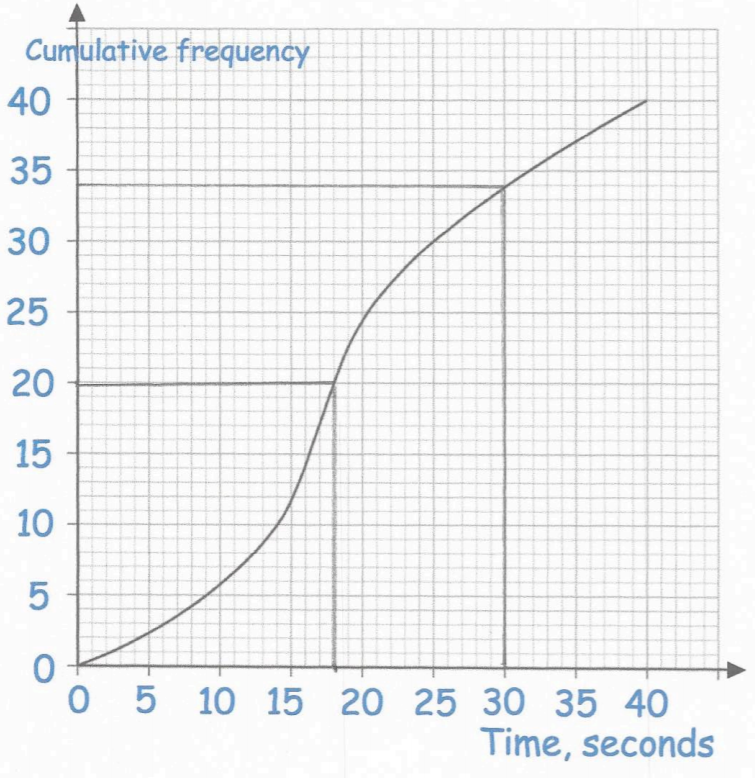
Mistake 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [**1 mark]**

1. The table gives information about the heights, ℎ metres, of trees in a forest. Draw a histogram to show this information. **[4 marks]**



1. A train company records the number of minutes, 𝑡, some trains were late in one month. The histogram summarizes the results. How many trains were more than 15 minutes late? **[3 marks]**



1. The graph on the right shows information about the time taken by 40 people to solve a puzzle.
2. How many people took less than 30 seconds?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **[1 mark]**

1. How many people took less than 10 seconds?

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1. How many people took longer than 25 seconds?

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1. How many people took longer than 35 seconds?

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1. The fastest 10 people completed the puzzle under how many seconds?

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1. Show that less than 20% of people completed took longer than 30 seconds. **[2 marks]**

**Total: 37 marks**