1B – Displaying and describing categorical data

**ORGANISING CATEGORICAL DATA**

Construct a **frequency table** (including **percentage frequency**) for the following data:

*The climate type of 23 countries is classified as C (cold), M (mild) or H (hot), with the following results:*

M M C M M M H H M M M M H M H C M H M C M H M

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| --- | --- | --- |
| Climate Type | Frequency | |
| Number | Percentage |
| Cold |  |  |
| Mild |  |  |
| Hot |  |  |
| Total |  |  |

**IDENTIFYING THE MODE / MODAL CATEGORY**

The modal category is the **most frequently occurring category** in the data.

*In the above data set, the modal category is \_\_\_\_\_\_\_\_\_\_\_* .

**WRITING A REPORT DESCRIBING A CATEGORICAL VARIABLE**

1. Summarise the context of the data collection, including the number of individuals involved
2. If there is a clear modal category, mention the percentage in a sentence
3. If there are only a small number of other categories, mention all of their percentages in a sentence
4. If there are a lot of other categories, only mention some key percentages

Fill in the blanks to generate an example report for the above data set:

*The \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ of 23 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ were classified as being*

*‘\_\_\_\_\_\_\_\_’ , ‘\_\_\_\_\_\_\_\_\_’ or ‘\_\_\_\_\_\_\_’. The majority of the countries, \_\_\_\_\_\_, were*

*found to have a \_\_\_\_\_\_\_\_\_\_ climate. \_\_\_\_\_ were found to have a \_\_\_\_\_\_\_ climate,*

*while \_\_\_\_\_ were found to have a \_\_\_\_\_\_\_\_ climate.*

1B – Displaying and describing categorical data

**DISPLAYING CATEGORICAL DATA USING A BAR CHART**

Using the frequency table above, construct **bar charts** to represent the data – one with a **frequency scale** and one with a **percentage frequency scale**.

*NOTE: There are Mathematica commands for checking your graphs in the Chapter 1 notebook*

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**DISPLAYING CATEGORICAL DATA USING A SEGMENTED BAR CHART**

Using the frequency table above, construct **segmented bar charts** – one with a frequency scale and one with a percentage frequency scale to represent the data. Include a **key**.

*NOTE: There are Mathematica commands for checking your graphs in the Chapter 1 notebook*

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