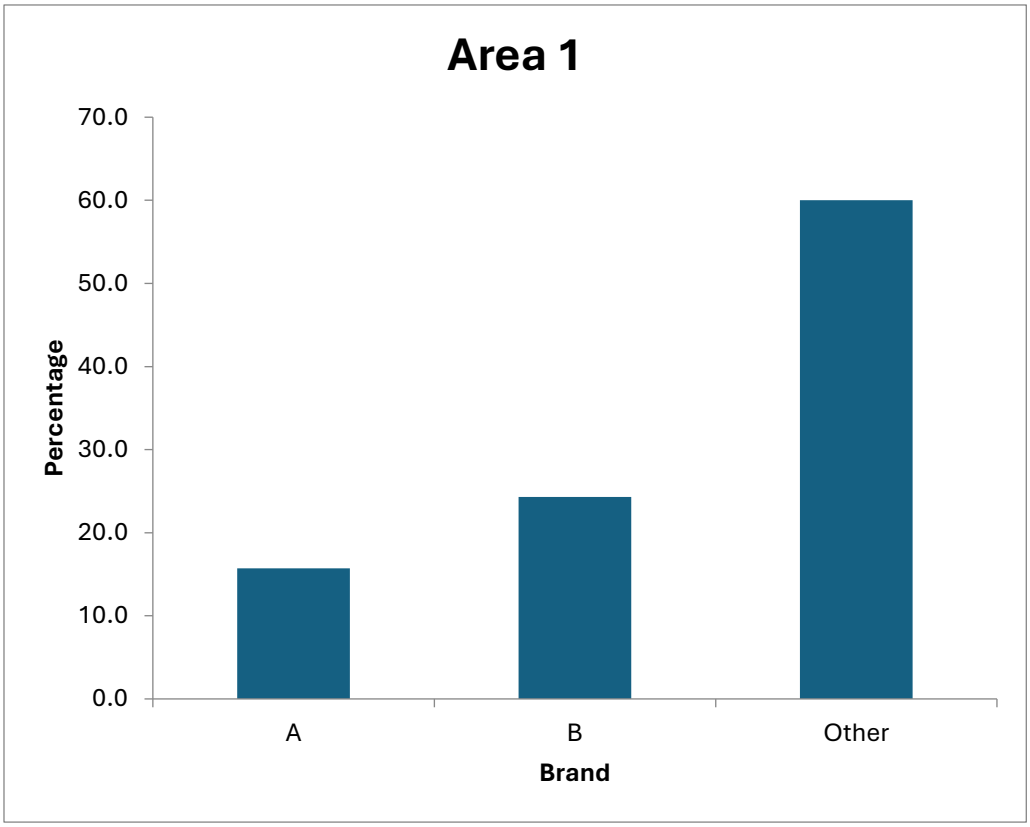
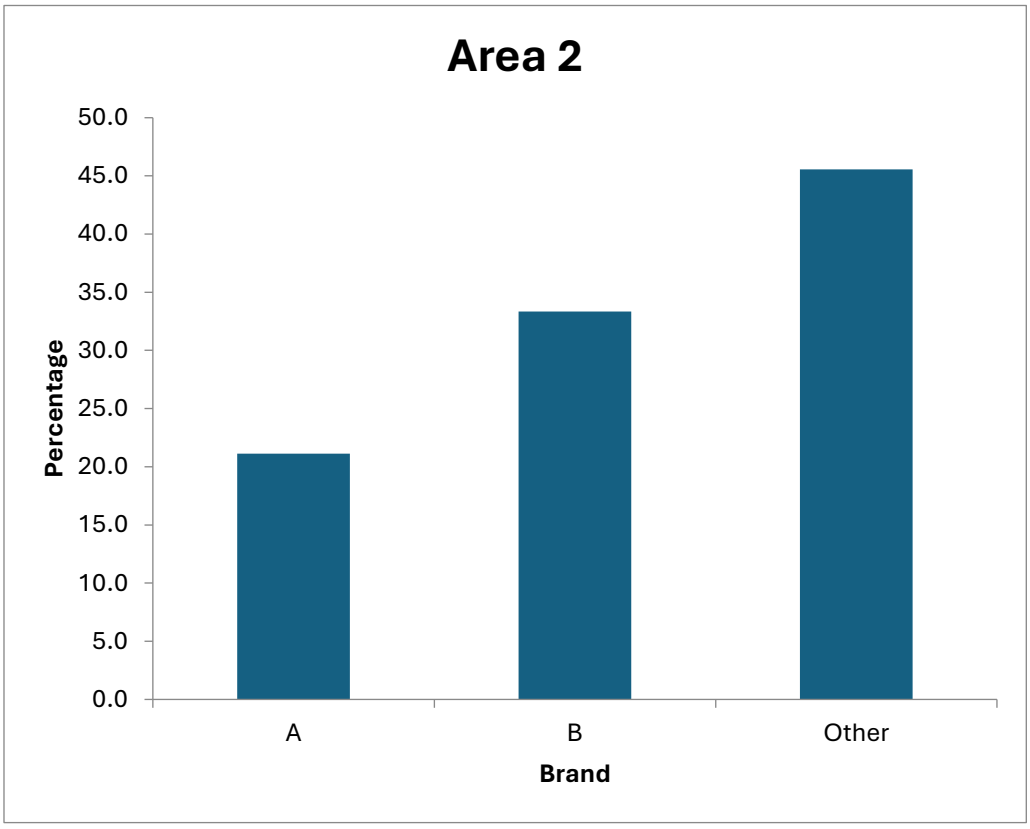
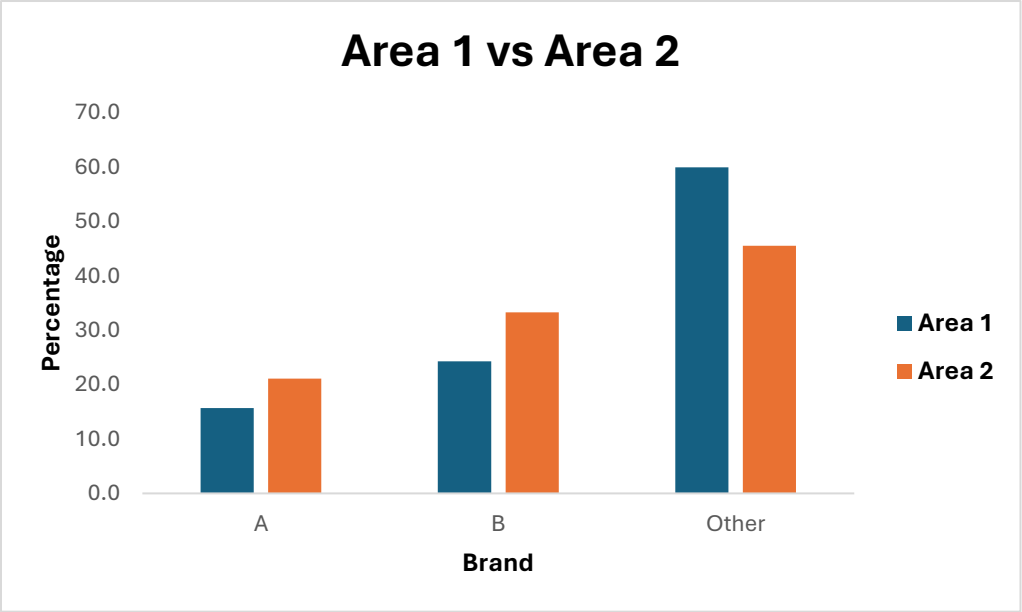
Unit 9 - Charts Worksheet: Interpretations:

Exercise 9.1:





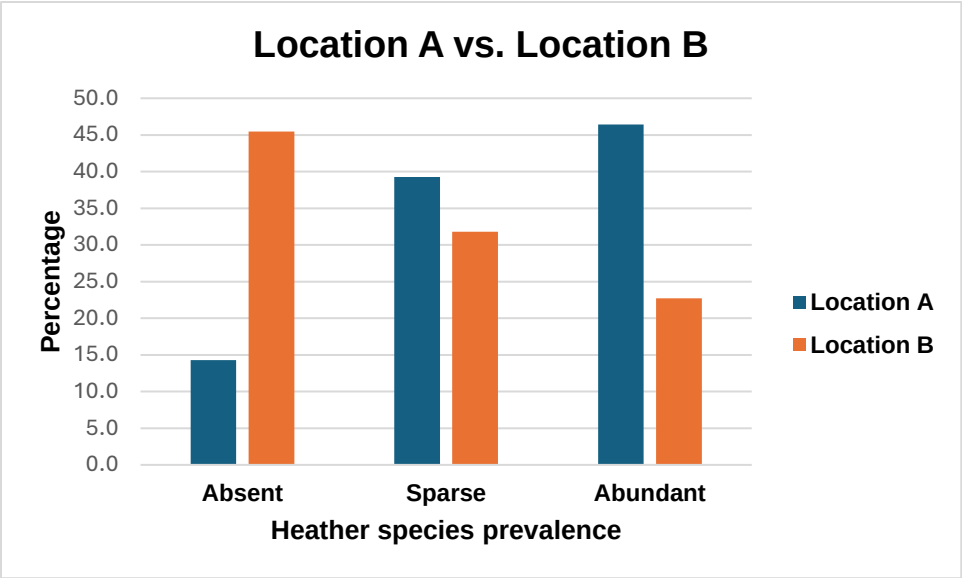


In the created bar chart for Area 2 we see that just as in Area 1 Brand A is least preferred, Brand B get a bit more interest and most people prefer another brand that is neither Brand A nor Brand B. However, the percentages are way closer to each other in Area 2 than in Area 1. While in Area 1 about 15% prefer Brand A, about 25% prefer Brand B and about 60% prefer a brand that is neither Brand A nor Brand B, in Area 2 about 21% prefer Brand A, about 34% prefer Brand B and about 45% prefer another brand that is neither Brand A nor Brand B.

In Area 1, preferences are more polarised, with a strong inclination towards brands outside of the two specific options, as shown by the high 60% preference for "other brands." Meanwhile, Area 2 shows a more balanced distribution, with smaller gaps between the preferences for Brand A, Brand B, and other brands.

The closeness of percentages in Area 2 indicates a more competitive market where consumers are less decisively inclined towards external brands, possibly suggesting that Brand A and Brand B have stronger market positions here compared to Area 1.

Exercise 9.2:

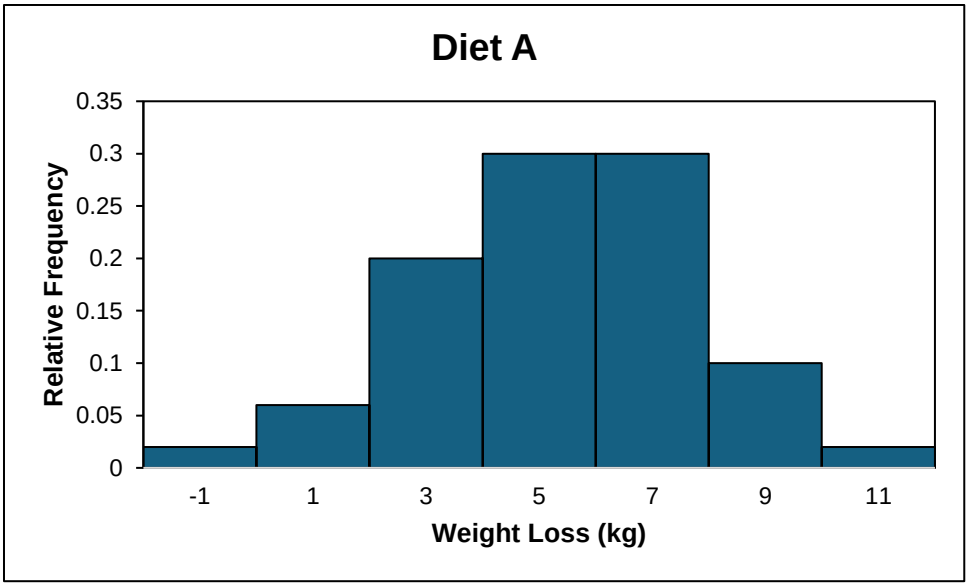


The resulting clustered column bar chart clearly shows that there are some differences in the heather species prevalence of Location A and Location B. We see that in Location A, about 15% of heather species are absent, compared to about 45% in Location B. In Location A about 39% of heather species are sparse, compared to about 32% in Location B. In Location A about 46% of heather species are abundant, compared to about 23% in Location B.

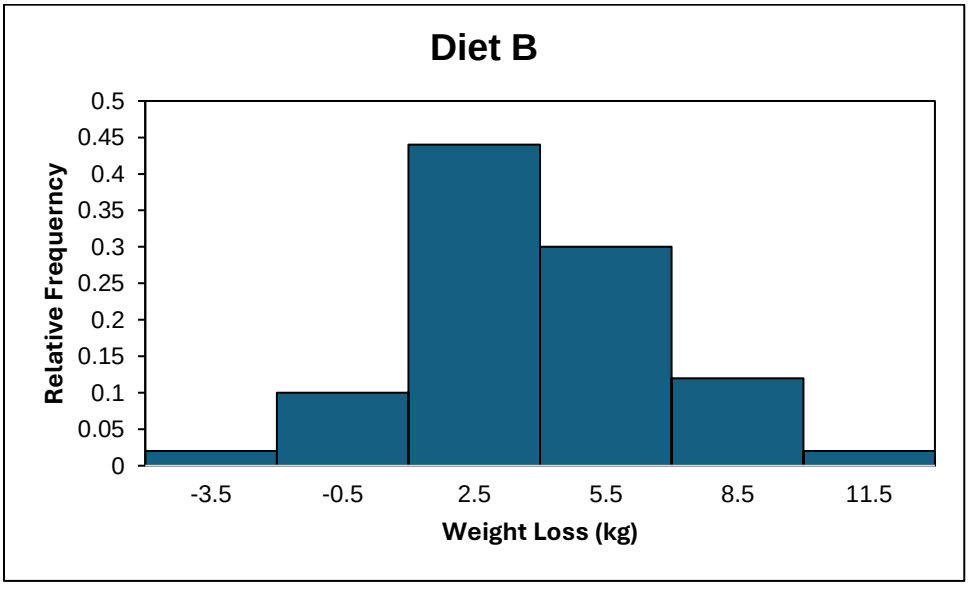
These findings suggest that Location A generally supports a higher prevalence of heather species compared to Location B. The lower absence rate and higher abundance rate in Location A indicate more favourable conditions or a more suitable habitat for heather species compared to Location B.

Exercise 9.3:

Here you see the resulting histogram for Diet A from the example:



Here you see the resulting histogram for Diet B from Exercise 9.3:



The comparison of the two histograms showcasing weight loss results (in kg) for Diet A and Diet B reveals several noteworthy insights. The histograms differ in their range, reflecting different minimum and maximum weight changes. Diet A exhibits a relatively narrow range of weight loss results, while Diet B demonstrates a broader spectrum. Although both diets share a similar maximum weight loss, the minimum weight change for Diet B is significantly lower, with a midpoint of -3.5 kg compared to -1 kg for Diet A. This indicates that while also some individuals on Diet A experienced weight gain, the extent of weight gain for Diet B participants was more pronounced. Both histograms display lower frequencies at the extreme ends, suggesting that only

a few individuals achieved the best or worst outcomes. However, the distribution of weight loss differs notably between the two diets: Diet A has a higher concentration of results closer to the maximum weight loss, with approximately 30% of participants reporting weight losses between 5 and 7 kg. Conversely, Diet B skews towards the lower end of weight loss results, with about 40% of participants showing an average weight loss of only 2.5 kg.

These results suggest that Diet A may be more effective for achieving significant weight loss, as evidenced by the higher concentration of results near the upper end of the weight loss spectrum. The narrower range also implies more consistent outcomes among participants. On the other hand, Diet B shows a broader variation in results, with a tendency towards smaller weight losses and a higher risk of weight gain. This could indicate that Diet B may not be as universally effective or that its results are more variable depending on the individual. Overall, for individuals seeking more substantial and consistent weight loss, Diet A appears to be the more promising option.