

## Section 1.2 Worksheet – Organizing and Displaying Categorical Data

MDM4U

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**Refer to part 1, 2 & 3 from 1.2 lesson for help with the following questions**

**1)** The colours of cars in the King's parking lot are recorded in the table below

Colour	Frequency
White	11
Black	24
Silver	15
Red	8
Blue	6
Beige	4
Other	2

- a) What type of variable is 'colour of car'?
- b) Make a bar graph to display this data
- c) Copy the table and add a relative frequency column
- d) Make a relative frequency bar graph

**2)** In order to set a reasonable price for a bottomless cup of coffee, a restaurant owner recorded the number of cups each customer ordered on a typical afternoon.

2    1    2    3    0    1    1    1    2    2  
1    3    1    4    2    0    1    2    3    1

- a) What type of variable is 'number of cups of coffee'?
- b) Create a frequency table and bar graph to display the information
- c) Create a relative frequency table and corresponding relative frequency bar graph

**Refer to part 5 from 1.2 lesson for help with the following question**

**3)** The number of goals scored by the top four players on the school soccer team are displayed. Jared has 14 goals.

Jared 

Phil 

Beth 

Talia 

- a) What information is missing from the graph? Provide it.
- b) How many goals does each player have?
- c) What are the advantages and disadvantages of using a pictograph?

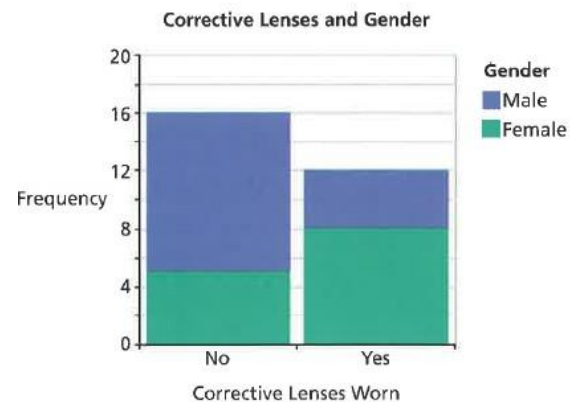
*Refer to part 6 from 1.2 lesson for help with the following questions*

4) Here data from a survey conducted at eight high schools on smoking among students and their parents.

	Neither Parent Smokes	One Parent Smokes	Both Parents Smoke	Total
Student Does Not Smoke	1168	1823	1380	
Student Smokes	188	416	400	
Total				

- Copy the table and complete the totals
- Calculate the conditional distribution of student smoking behavior based on parent smoking behaviour.
- Use your conditional distribution to describe the relationship between the smoking behaviours of students and their parents.

5) Students were asked if they wear corrective lenses. The graph shows the responses. Do more females or more males wear corrective lenses? Explain.



6) Students were asked if they possess a valid driver's license. The results are shown below, broken down by gender. Does gender have any effect on whether a student has a license or not? Explain.

