Name: _____ Date: _____

BLM 11–1

Chapter 11 Math Link Introduction

This worksheet will help you with the Math Link introduction on page 413.

Val decided to study the population of the ungulates in Elk Island National Park. The table shows the data she collected from the park warden.

Ungulate	Approximate Total Park Count (2007 Fall Count)
Plains bison	425
Wood bison	400
Elk	605
Moose	300
Deer	558

1. a) Choose two types of graphs to display the data that Val collected.

For a bar graph or a line graph:	For a circle graph:	For a pictograph:
• Decide on a scale. • Title and label both axes. • Plot the categories along the *x*-axis. • Plot the values along the *y*-axis. • Add a title.	• Draw a circle using a compass. • Use a protractor to measure and draw each angle. • Label each sector with its category and its percent. • Shade each sector. • Add a title.	• Decide on symbols. • Provide a key. • Add a title.

If you choose a circle graph, complete the following table to calculate the central angles. The first one is done for you.

Ungulate	Total Park Count	Percent of Total	Decimal Value	Central Angle
Plains bison	425	$\frac{425}{2288} = 18.6\%$	0.186	$0.186 \times 360° = 67°$
Wood bison	400			
Elk	605			
Moose	300			
Deer	558			

b) Use grid paper to draw the graphs.

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c) Explain why you chose each type of graph.

_____

_____

2. What is the most common ungulate in the park? Explain how you know.

_____

_____

3. Elk Island National Park has an area of 194 km².

a) About how many times greater is the number of elk than the area of the park? _____

b) What is the mean number of elk per square kilometre, to the nearest tenth?

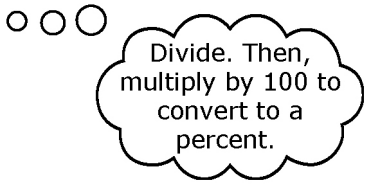
Hint: $\frac{\text{total number of elk}}{\text{total park area}}$

c) Compare your calculated answer in part b) to your estimate in part a). Is your answer reasonable? YES NO Explain.

_____

4. What percent of the ungulate population do bison represent?

Hint: $\frac{\text{total number of bison}}{\text{total ungulate population}}$



5. You will study an issue related to wildlife protection and management. As you do, you will develop your own research project. Your project will involve collecting, displaying, and analysing your data. You might study birth rates, death rates, or migration patterns of an animal population. Or, you might consider the effects of tourism, recreation, or environmental factors such as pollution, on a population.

a) You might study a wildlife issue in a park. If so, what park will you choose? _____

b) Where is the park located? _____

c) What issue interests you? Search magazines or the Internet to research at least two areas of interest. List your areas of interest.

_____ _____