

NAME _____

Directions: In order to complete some of these problems you may need to visit the exhibit at the Minnesota Zoo or research the information. If you are creating a table or graph, be sure to include titles and labels. For some of these problems, you will need to visit the specified exhibits.

TROPICS TRAIL

- 1) Lemurs are only found on the island of Madagascar.
How many different species of lemurs are there?



100

- 2) Look at the map where ring tail lemurs live. About what percentage of the island of Madagascar would you say they occupy? Write that also as a fraction.

ABOUT 20% OR 25%

- 3) Small-clawed otters weight about 2 ounces at birth.
a) 16 ounces = 1 pound (lb)
What fraction of a pound do some baby otters weigh?



2/16 OR 1/8 OF A POUND

- b) Now write that fraction as a decimal.

0.125

DISCOVERY BAY

- 1) When a shark bites it can exert a force of 44,000 pounds per square inch. A human bite exerts about 150 pounds per square inch. How many more pounds of pressure does a shark exert with its powerful bite? Show your work.



44,000 - 150 = 43,850 LBS/SQ INCH

- 2) How many animals do you estimate? How many do you count?

ANSWERS WILL VARY.

NAME _____

SOUTH HALLWAY

- 1) South African penguin.
Choose one penguin to observe for a total of 2 minutes. Record with a tally mark the number of times you observe the indicated behavior within that time slot. Watch your time carefully.

Behavior	0-30 sec.	30-60 sec.	60-90 sec.	90-120 sec.
Stands alone				
Stands with other penguins				
Swim at surface				
Swims underwater				
Interactions: fights or play				

- a) What was your penguin's most frequent activity?

ANSWERS WILL VARY.

- b) Express this activity as a fraction of the total number of behaviors.

ANSWERS WILL VARY, DEPENDING ON TALLY MARKS.

NORTHERN TRAIL

- 1) The grizzly bear's summer and winter weights can differ as much as **400** lbs. If Haines (our largest bear) weighs 950 lbs. at summer's end, how much does he weigh at winter's end?

950-400 = 550 LBS

- 2) The pronghorn is a small, hoofed animal, native only to North America. It is a prairie dweller, and can withstand temperature extremes of -45 °C to 37.75 °C. (-50 °F to 100 °F).



- a) Find the difference in degrees between these two extremes in °C (Celsius) and °F (Fahrenheit). Show your work.

(-45) - 37.75 = 82.5° C
(-50) - 100 = 150°F

- b) Pronghorn also have incredible vision. They can spot trouble 3 miles away. How many feet is this?

5280 X 3 = 15,840 FEET



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MINNESOTA TRAIL

1) Quills are the porcupine’s trademark. There are about 30,000 quills on their bodies. Most are found on the back and tail but some are found on the head and upper parts of the legs. There are about 15 quills per square cm (100 per sq in) on the head and tail.

a) If a porcupine had an area on its tail the size of 200 sq. cm, about how many quills would it have there? Show your work.

15 QUILLS / 100 SQ IN X 2 = 30 QUILLS / 200 SQ IN.

2) Coyotes often get mistaken for wolves. Fill in the chart and then convert the length, height, and weight to inches and ounces.

	Coyote	Wolf
Length (ft)	3.6-4.4 FEET	4.5-6.5 FEET
Height (ft)	1-2 FEET	2-3 FEET
Weight (lbs)	20-50 POUNDS	60-115 POUNDS

	Coyote	Wolf
Length (in)	43.2-52.8 INCHES	54-78 INCHES
Height (in)	12-24 INCHES	24-36 INCHES
Weight (oz)	160-400 OUNCES	480-920 OUNCES