

WELCOME TO THE ZOO!

It's time for a math scavenger hunt at the zoo. There is math all around you in the big, wide world of animals. The math begins when you walk through the gates of the zoo! You want to get the best deal possible for your family, so you start calculating...

Daily Zoo Admission
Valid for one day's admission to the zoo

Single Ticket.....\$24
(Ages 3-12)

Single Ticket.....\$18
(Ages 13+)

Yearly Zoo Membership
Valid for unlimited zoo visits for one year.

Individual.....\$89
(Admission for one person)

Family.....\$147
(Admission for two adults and their children)

Your Family

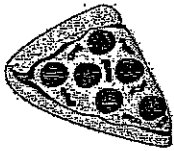
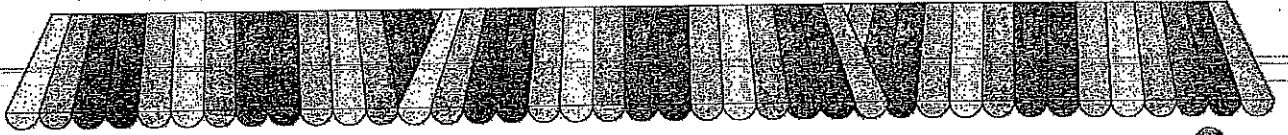
Your entire family is joining you for a zoo day. Write their names, ages and the cost of their single ticket in the space below.

Name	Age	Cost

1. Find the total cost for your entire family to go to the zoo if they each bought a single ticket.
2. Find the difference between how much it would cost to buy a family zoo membership instead of individual tickets for every person in your family.
3. Which is the better deal? Why?
4. If you planned to go to the zoo twice this year, which would be the better deal? Why?
5. Why might other students in your class have a different answer to number 3?

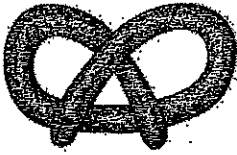
CONCESSION STAND CAPERS

Time for a trip to the concession stand!



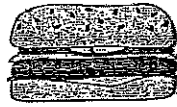
Pizza

\$8



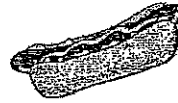
Pretzel

\$5



Burger

\$9



Hot Dog

\$7



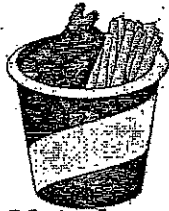
Corn Dog

\$6



Fries

\$11



Chicken

\$11



Popcorn

\$4



Candy

\$11



Ice Cream

\$4

Buy everyone in your family an entire MEAL. They must have at least two items for their meal. Find the combined price of all of your family's meals.

Compare your totals with THREE of your classmates.

1

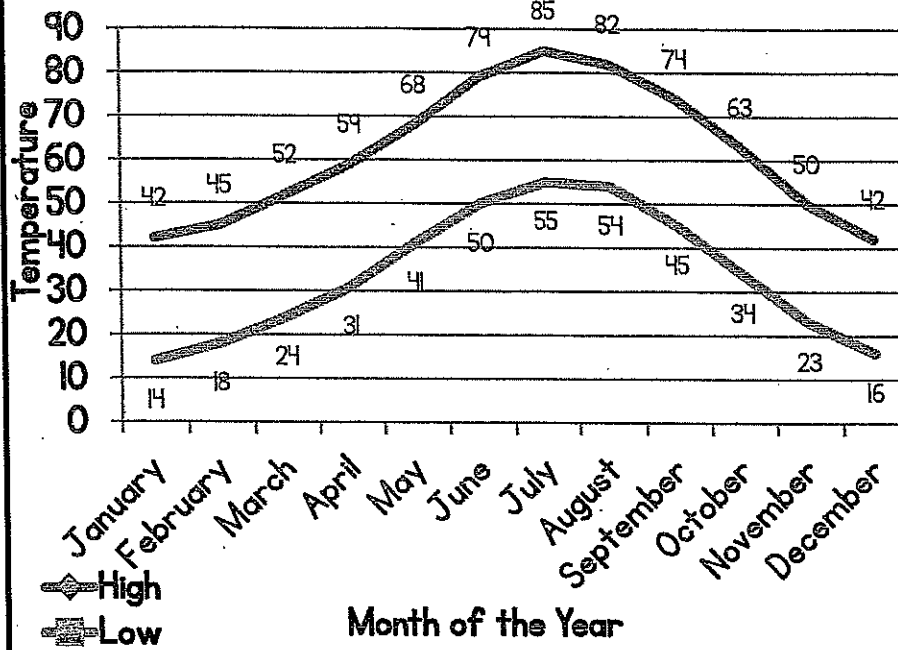
2

3

WEATHER OR NOT

The zoo is open rain or shine, hot or cold, 365 days a year! Some months can get a little bit more chilly than others, though. Check out the average weather at the zoo, then make some decisions about when you would like to take your trip.

Average Monthly Temperatures



Average Precipitation

Month	Inches
January	.28
February	.35
March	1.06
April	1.62
May	2.39
June	2.34
July	2.85
August	3.48
September	1.23
October	.86
November	.52
December	.42

1. During which month would you most like to visit the zoo? Why?

2. The record high recorded in the month of February is 76 degrees. What is the difference between the average high temperature and the record high temperature?

3. The record low recorded in the month of June was 32 degrees. What is the difference between the average low temperature and the record low temperature?

1. On the graph, draw a line between the high and low temperature each month. Find the difference between the two temperatures and write it on the line.

2. Highlight the name of the month with the greatest difference between the high and the low temperature.

3. The outdoor alligator exhibit only opens when the average high temperature is above 70 degrees. Underline the months that it will be open.

4. Color the number label of the highest high RED and color the label of the lowest high BLUE.

5. Color the label of the highest low GREEN and color the label of the lowest low YELLOW.

6. Find the difference between the highest average high and the lowest average high.

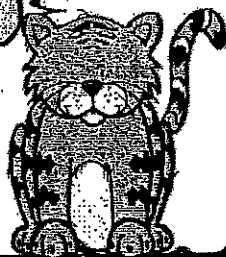
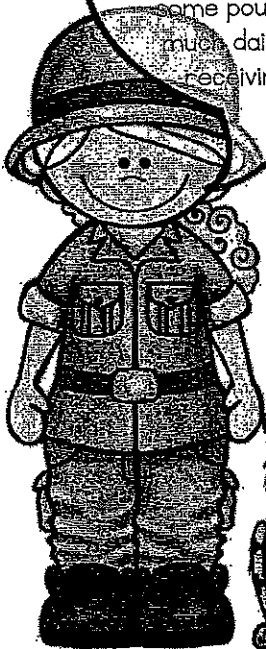
7. Find the difference between the lowest average low and the high average low.

A TINY WEIGHT PROBLEM

The zookeepers at this zoo really, really love their animals. They love their animals maybe just a little bit too much. They've been feeding them far too much food, and now many of the animals are overweight! It's time for a diet and exercise for these hungry hippos (and lions, and tigers, and bears, OH MY!). Fill in the blanks on the charts so that all of the sections are filled in.

Animal	Normal Weight	Maximum Weight	Current Weight	Weight to Lose
Gorilla	400 pounds		564 pounds	164 pounds
African Elephant	15,000 pounds			120 pounds
European Otter			35 pounds	9 pounds
Sumatran Tiger	242 pounds		267 pounds	
Lions			428 pounds	33 pounds
Panda Bear	250 pounds			95 pounds
Hippopotamus	3,500 pounds		4,233 pounds	

Well, she sure is right about us loving our animals. We're starting a strict diet and exercise plan for our four-footed friends to shed some pounds. Figure out how much daily activity they'll be receiving once we begin!



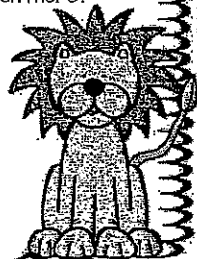
Too Bad Elephants Can't Fly

The elephant exercise schedule has expanded from just 30 minutes a day. They will now take a 25-minute guided walk in the morning, a 35-minute guided walk in the afternoon, and a 45-minute guided walk in the evening. How much EXTRA exercise will they be receiving?



Lions and Tiger and Trails, Oh My!

The lions and tigers are kept separated, but at different times during the day, they share a trail area. The lions have access to the trail for 35 minutes in the morning, 65 minutes in the afternoon, and 55 minutes in the evening. The tigers have access to the trail for 65 minutes in the morning, 45 minutes in the afternoon, and 34 minutes in the evening. Who has more trail time? How much more?



FOOD FOR ALL PART #1

Between the mammals, primates, reptiles, and amphibians, a lot of food is purchased each year at the zoo. Take a look at the zoo's grocery list for the year and evaluate just what the zoo has ordered.

Monthly Produce Consumption	
Monthly TOTAL	14,000 pounds
Carrots	1,600 pounds
Bananas	1,250 pounds
Apples	916 pounds
Lettuce	3,000 pounds
Other Produce	

Monthly Fish and Meat Consumption	
Monthly TOTAL	17,000 pounds
Herring	3,333 pounds
Squid	250 pounds
Mackerel	2,500 pounds
Smelt	833 pounds
Meat	

First, find the total amount of carrots, bananas, apples, and lettuce that the zoo animals eat each month. Using that number and the monthly produce total, build an equation to figure out how much other produce they eat each month. Write that in the "Other Produce" box.

Herring, squid, mackerel, and smelt are all of the different types of fish fed at the zoo. Use the monthly total amount of fish AND meat consumption to determine how much meat is eaten.

The zoo features a giraffe and elephant feeding experience where zoo patrons can feed the animals. The data below shows how much money the zoo SPENDS on the food to feed the animals and how much money they make off of zoo patrons buying food to feed the animals. Fill in the blanks to make the data charts

Giraffe Exhibit				Elephant Exhibit			
Food Type	Cost to buy	Money Made	Difference	Food Type	Cost to buy	Money Made	Difference
Lettuce	\$550		\$685	Bananas		\$899	\$110
Biscuits	\$325	\$345		Carrots	\$565		\$185
Total		\$1,580	\$705	Total	\$1,354	\$1,649	

FOOD FOR ALL PART #2

Now that you've seen how much food can be eaten and how much money can be made off of the feeding exhibits, you have a bit more exploring to do when it comes to the zoo's food situation.

Use the information to fill in the blanks

Monthly Misc. Food Consumption	
Hay	46,000 pounds
Primate Biscuits	1,000 pounds
Herbivore Pellets	
Mice	1,833
Crickets	

- The zoo buys 31,834 fewer pounds of herbivore pellets than pounds of hay.
- The zoo buys 79,166 more mealworms than waxworms.
- The zoo buys 98,167 more crickets than mice.

Monthly Worm Consumption	
Earthworms	75 pounds
Mealworms	135,416
Waxworms	

The zoo is having three different food supply companies make bids to provide the miscellaneous food and the worms. Add the two totals to find their total bid for providing food.

Big Cat's Animal Supply


Hay	\$3,220	Earthworms	\$225
Biscuits	\$1,276	Mealworms	\$2,708
Pellets	\$2,735	Waxworms	\$5,600
Mice	\$1,833	Total	\$8,533
Crickets	\$6,000		
Total	\$15,064		



TOTAL

It's a Zoo Supply Co.


Hay	\$3,546	Earthworms	\$265
Biscuits	\$1,076	Mealworms	\$2,895
Pellets	\$1,899	Waxworms	\$4,980
Mice	\$2,009	Total	\$8,140
Crickets	\$5,456		
Total	\$13,986		



TOTAL

Lions and Tigers Supply

Hay	\$3,190	Earthworms	\$200
Biscuits	\$1,275	Mealworms	\$2,543
Pellets	\$3,015	Waxworms	\$6,098
Mice	\$2,054	Total	\$8,841
Crickets	\$4,567		
Total	\$14,101		



TOTAL

Now that you know how much each company costs in total, you're going to make the zoo an even better deal. Highlight the **LOWEST** price for each item between the three suppliers. (For example, the lowest hay price is \$3,190 from Lions and Tigers Supply.) Make a list of the lowest priced items and find the total cost of your custom order!

Item	Store Name	Cost
Hay	Lions and Tigers Supply	\$3,190
Biscuits		
Pellets		
Mice		
Crickets		
Earthworms		
Mealworms		
Waxworms		
Total		

EXPERTS IN ANIMALIA

Who knew how much math there was to be done at the zoo? Well, have you ever thought about all of the people who work at the zoo? They must get paid, too! Match each person below to their salary.

Zoo Occupation	Annual Salary
Zookeeper	\$28,000
Zoologist	\$45,460
Zoo Educator	\$32,000
Zoo Animal Trainer	\$25,770
Zoo Habitat Designer	\$64,180
Zoo Veterinarian	\$97,355
Zoo Veterinarian Technician	\$31,070

Color the name of the highest paid occupation GREEN and the lowest paid occupation YELLOW. Find the difference between the two.

Hey there, friend! I'm Marty, and I'm the _____. I make more money than the zoo animal trainer, but only by \$2,230!



Hi Di Hol! My name is Tawna, and I'm the _____. My college degree cost me \$65,000! I make \$33,930 less than that each year.



Well, hello there! My name is Jackson, and I'm the _____. I spent \$100,000 at my job (it's a pretty special one) last year. My salary is \$35,820 less than that!



Hay is for horses, so hello! I'm Jackie, and I'm the _____. I supervise Tawna, and I make \$66,285 more than she does.



Boom, boom, ain't it great to be at the zoo? My name is Maria, and I'm the _____. My weekly salary is about \$874, which is \$44,586 less than my total yearly salary.



It's a zoo in there! My name is Sheila, and I'm the _____. I have a pretty important job. Next month, I'm getting a \$4,230 raise, and then I'll be making \$30,000 a year!



BONUS: Find the total amount of money paid to ALL of the zoo employees.



ONCE IN A LIFETIME



Animals have varying lifespans. Look at the chart to determine the animals' average life span, their current age, and how many more years they can be expected to live.

Animal	Average Life Span	Current Age	Expected Years to live
Gorilla		22	13
African Elephant	40 Years	14	
European Otter	22 Years		14
Sumatran Tiger		12	13
Lions	19 Years	8	
Panda Bear	30 Years		25
Hippopotamus		32	17

The following animals came to the zoos at different times and were different ages upon arrival. Fill in the blanks to see when each animal was born, arrived, and how old they were when they arrived.

Animal	Birth Year	Age Arrived at Zoo	Year Arrived at Zoo
Penguin	2004		2010
Anaconda	1998	14	
Jaguar		3	2007
Kangaroo	2003		2009
Sea Lion	1991	24	
Zebra		19	2005
Wombat	1999	16	
Antelope		3	2014

FURRY FUNDRAISING EFFORTS

Many zoos have some sort of fundraising effort for endangered animals. At the entrance of this zoo, each person receives a token. They get to choose from 10 different animals to donate their token to. Each token represents \$1 donated to the animal. Look at the data for a WEEK below, and find out how much will be donated to each of the animals.

Animal	Monday	Tuesday	Wednesday	Thursday	Friday	Total Amount Donated
Panama Amphibians	25	22	13	28	41	
Wild Orangutans	45	14	26	47	67	
Black Footed Ferrets	33	34	14	52	89	
Wyoming Toads	24	23	13	19	34	
Wild Giraffes	53	48	54	69	97	
African Elephants	30	36	25	33	65	
African Rhinos	28	39	17	35	42	
TOTAL PER DAY						

Now, survey your class to find out which type of animal each person would donate their token to. Then, find the new total amount donated for each animal, including your classmates.



Animal	Zoo Amount Donated	Class Votes	Total Amount
Panama Amphibians			
Wild Orangutans			
Black Footed Ferrets			
Wyoming Toads			
Wild Giraffes			
African Elephants			
African Rhinos			