

PHILADELPHIA ZOO

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Animal Math (Pre-K – 2nd)

Essential Question

How is math connected to animals and conservation?

Objectives

1. Practice adding and subtracting whole numbers.
2. Write a word problem involving animals.
3. Understand how some animals are able to camouflage in their habitat.
4. Recognize that the number of animals is important for scientists to know so they do not go extinct.

Vocabulary

Extinct: When a species is no longer in existence.

Population: A community of animals that live in the same area and reproduce.

Habitat: A place which contains all the necessary factors needed for a species to survive.

Camouflage: An animal's natural coloring or form that enables it to blend in with its surroundings.

Recommendations

Read:

[Lifetime: The Amazing Numbers in Animal Lives](#) – Lola M. Schaefer

[Animals by the Numbers: A Book of Infographics](#) – Steve Jenkins

Research:

- Different animals and how many are left in the wild
- How many pets live with everyone in the class or school

Discuss:

Why is it important for scientists to know how many animals are left for a species?

What might happen if an animal's population gets too small?

Classroom Activity

Animal Math

- This activity should be done individually.

Individually: Use the included worksheets to have students solve animal math problems.

For younger students: Only use the worksheets that meet the math skills of your students. Worksheets are presented in progressing difficulty.

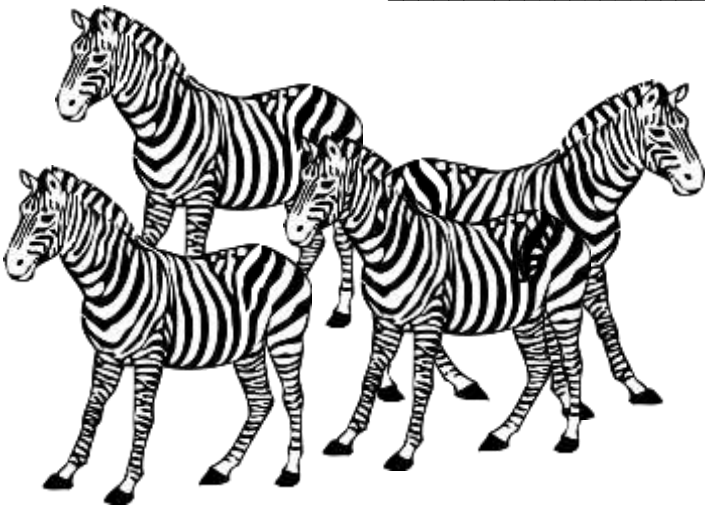
Standards

PA Academic: CC.2.1.K.A.1, CC.2.2.1.A.1, CC.2.1.1.B.1

New Jersey Core Curriculum: 1.OA.A, 1.OA.C

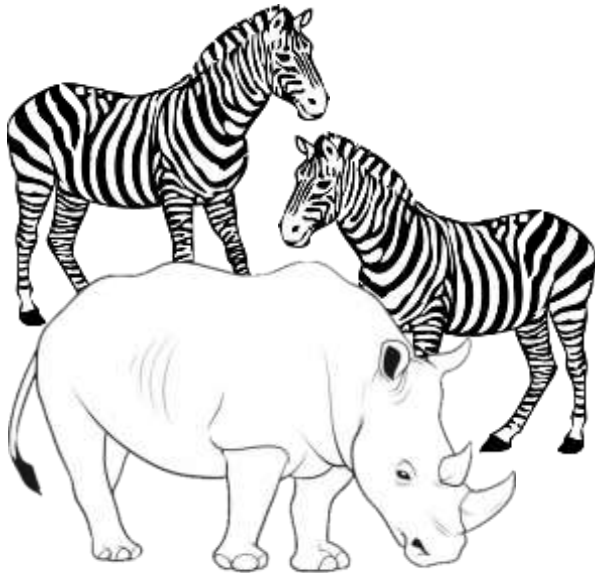
Common Core: CCSS.MATH.CONTENT.1.OA.A.1, CCSS.MATH.CONTENT.1.OA.C.5

Worksheet 1 Name: _____ Date: _____



How many zebras do you see?

What is a group of zebras called?

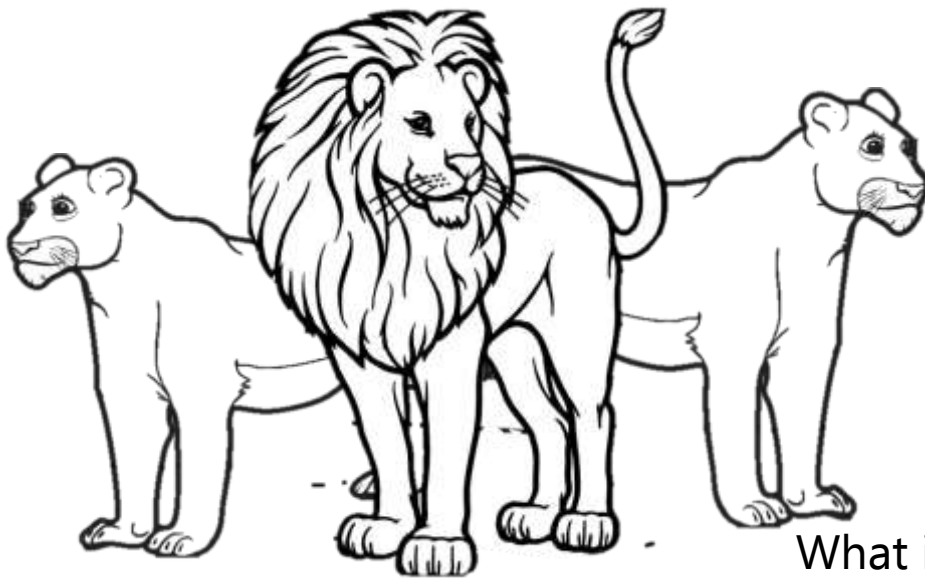


How many zebras are in this herd?

Do you see any other animals in the herd?

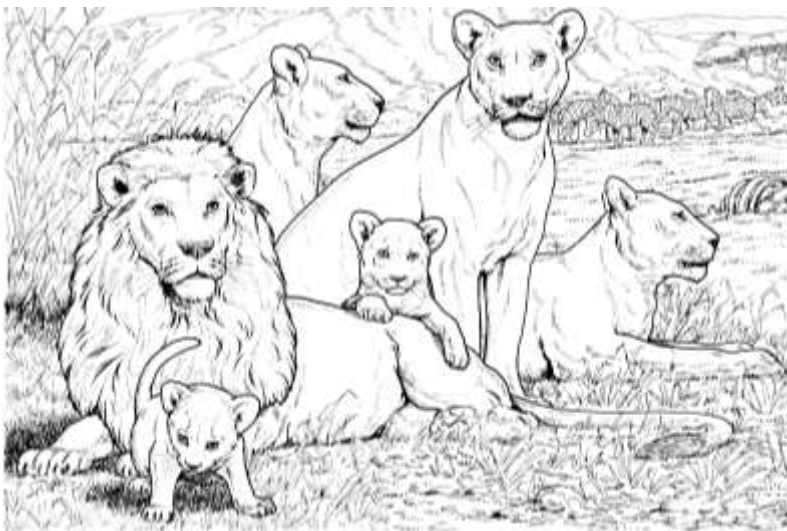


This is a real zebra herd!
How many zebras do you
think are in this herd?



How many lions do you see?

What is a group of lions called?



How many adult lions are in this picture?

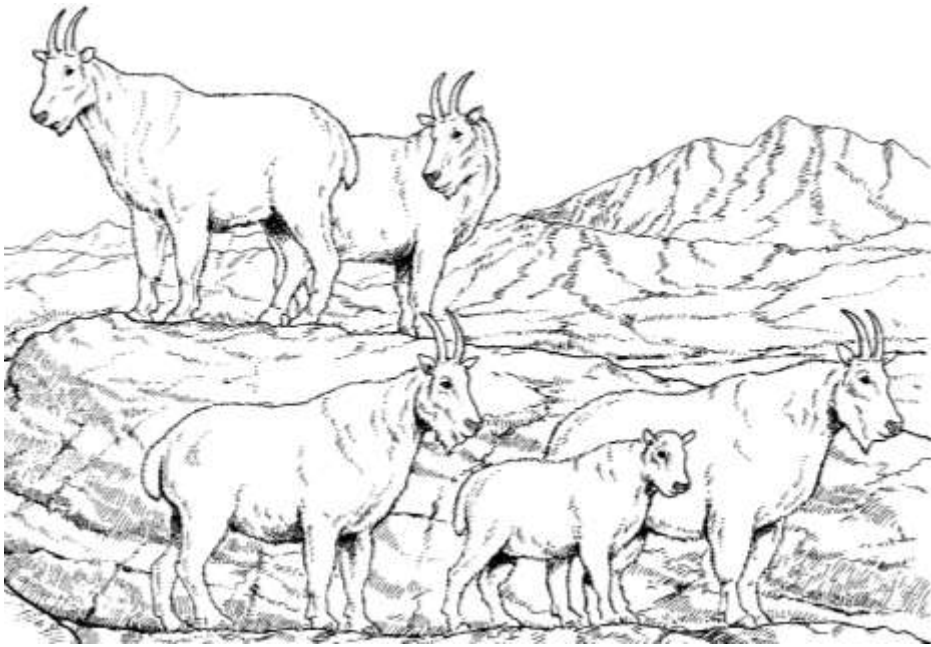
How many baby lions are in the picture?



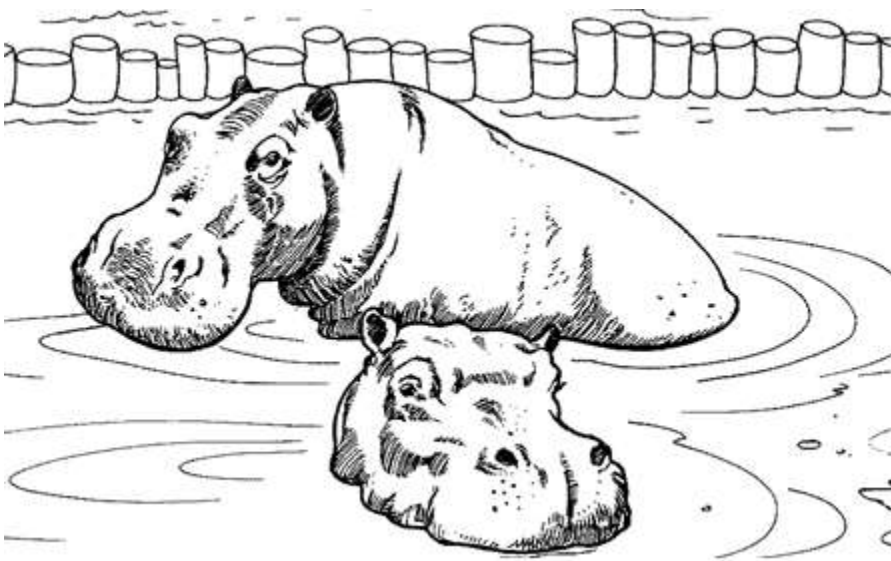
Can you find the lion?
Lions are very good at hiding!

Worksheet 2 Name: _____

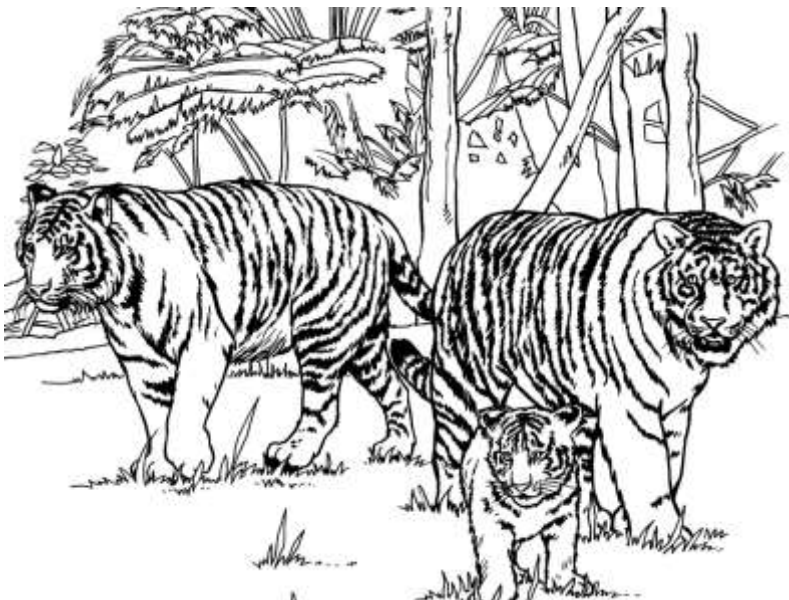
Date: _____



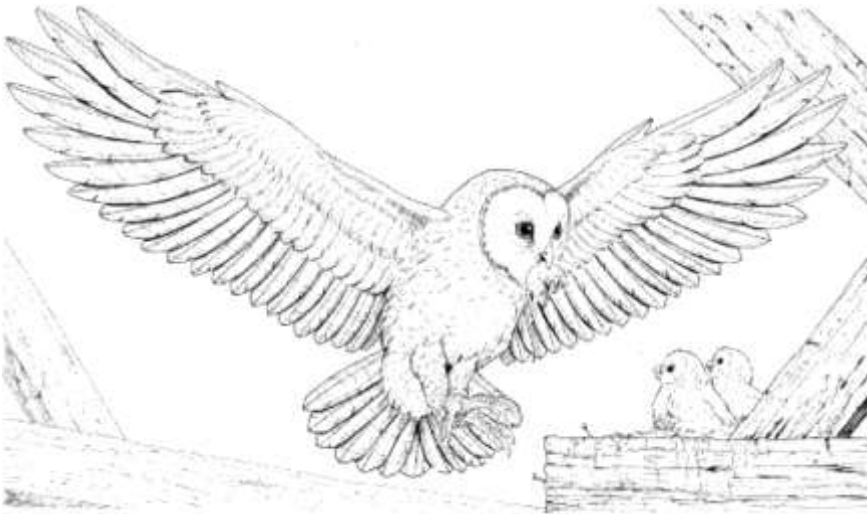
If two more goats joined this herd, how many goats would there be?



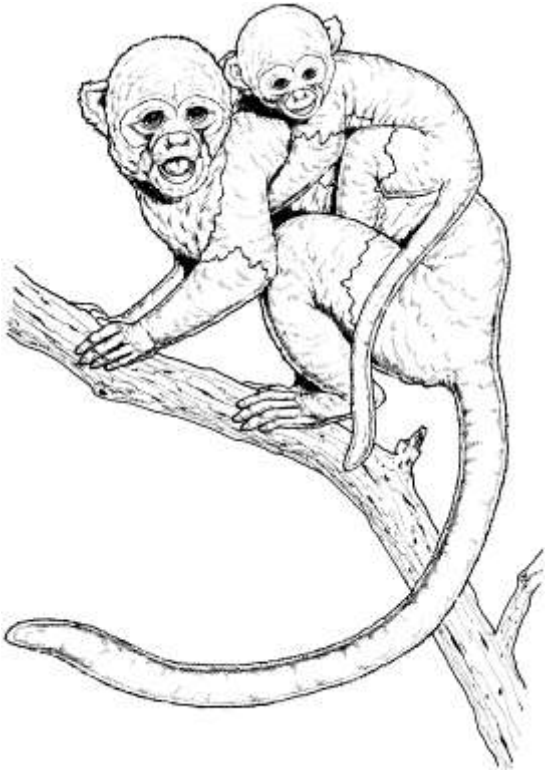
Cindy and Una love to eat apples. If Cindy eats 5 apples and Una eats 3 apples, how many apples did they eat total?



One of the tiger cubs went exploring without his family. When they find him how many tigers will there be?



When baby owls grow up they leave the nest. When these babies leave how many owls will there be?



This mom is not happy. She had 7 grapes but someone took 4 of them. How many grapes does she have left?

Worksheet 3 Name: _____ Date: _____

Step 1: Calculate the answer for each of the following problems and write the answer in the middle rectangle

Step 2: Write the letter that matches the sum in the bottom rectangle to discover the mystery zoo animal!

1	2	3	4	5	6	7	8	9
B	I	Q	T	D	R	V	F	L
10	11	12	13	14	15	16	17	18
Z	G	O	W	K	Y	N	X	H
19	20	21	22	23	24	25	26	
E	M	A	S	C	P	U	J	

19	13	12	11	14	15	9	29	21
-7	-7	+9	+5	-3	+10	-5	-8	-5

There are 6 groups of orangutans in this part of the Sumatran forest. Each circle shows how many orangutans are in each group. How many total orangutans can be found here?



There are only 14,600 orangutans on the whole island of Sumatra. Does this sound like a lot to you? Why do we care how many orangutans there are?