Math Challenge #3

| First Name: _____ | Last Name: _____ | Grade: _____ |
| Teacher: _____ | Parent's email: _____ | |

Dogs and Cats

Welcome to the Math Challenge #3. In this challenge, we will solve problems involving pets. Worldwide, dogs and cats are some of the most popular choices for pets. Pets have been kept by humans since prehistoric times, and almost every single culture around the world has a history of pets.

Below are some fun facts about dogs and cats:

- Every dog has a unique nose print with no two alike.
- Greyhounds are the world's fastest dogs with the ability to reach up to 45 mph.
- A dog's sense of smell is 1000 times greater than a human!
- Dogs can smell when their owners are afraid
- Cats have 4 rows of whiskers.
- Cat whiskers are so sensitive they can detect the slightest change in air current.
- Cats spend 15-20% of their time grooming
- Cats sleep for around 70% of their lives which can be up to 16 hours a day

Kinder & First Grade: solve <u>at least</u> 3 problems.
Second & Third Grade: solve <u>at least</u> 7 problems.
Fourth Grade and above: solve <u>at least</u> 12 problems.

Answer

1.	Who has the most legs, a flamingo, a fish or a cat?	
2.	There are four dogs lining up nicely in a row: Archimedes, Zeus, Lotus and Madura. Archimedes has one neighbor, and it is not Zeus. Lotus also has only one neighbor. Who is Lotus' neighbor?	
3.	If there are 10 houses on your street and all but 1 have a pet, how many homes have pets?	
4.	Ella made 16 homemade treats for her two dogs. She gave 2 treats to Marcy the Maltesse and 3 treats to Phoenix the Poodle. How many treats did she have left?	

5. Four children (Amanda, Bianca, Cody and Donovan) have different pets (bird, cat, dog and fish). Bianca's pet can't fly. Cody's pet has fur, so does Donovan's. Donovan's pet does not bark. Find out who had which pet.

You may use the chart below to work out your solution.

	Bird	Cat	Dog	Fish
Amanda				
Bianca				
Cody				
Donovan				

Amanda's pet: _____

Bianca's pet: _____

Cody's pet: _____

Donovan's pet: _____

6.	Betsy the Poodle weighs 9 pounds less than Poochie. Poochie weighs twice as much as Billy. If Billy is 14 pounds, how heavy is Betsy in pounds?	

7.	Amina works at a dog shelter near her house. The dog shelter has between 50 to 80 dogs in total. When Amina groups them by 4, there are 3 dogs left. When she groups them by 7, there is 1 dog left. How may dogs does the shelter have?	

8.	Lisa went to buy some dog treats and dog toys. Dog treats were on sale; each bag cost $12. Dog toys were also on sale; each toy cost $7. Lisa spent exactly $100 at the store. a. How many bags of dog treats did she buy? b. How many dog toys did she buy?	*a.* *b.*

9.
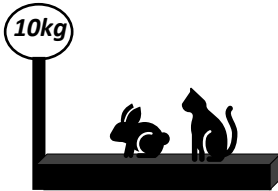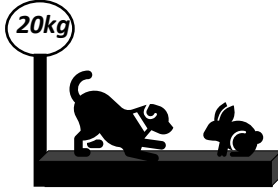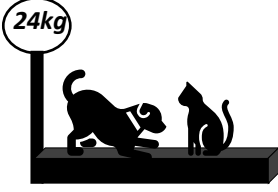

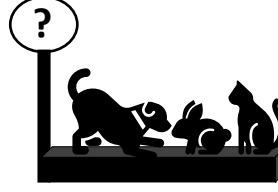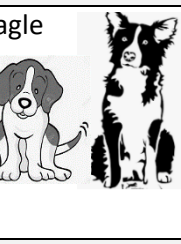| 10.	All the neighbors on Doreen's street have pet hamsters, turtles, and parrots. If the hamsters and turtles add up to 16, the turtles and parrots add up to 10, and the hamsters and parrots add up to 8, how many of each pet are on Doreen's street?	*Hamsters: _____* *Turtles: _____* *Parrots: _____*

11. Find the total weight of the rabbit, dog and cat in the picture below:

12.	Sofie made 2005 homemade dog treats . She packed dog treats in bags of either 5 or 12. What is the smallest number of full bags required to pack exactly 2005 treats?	

13.	Laura feeds her collie 3 cups of dog food each day, and she feeds her beagle 12 cups of dog food each week. If Laura buys a bag of dog food containing 75 cups and feeds both dogs for two weeks, how many cups of dog food will be left in the bag?	

14.	In a community of 416 people, each person owns a dog or a cat or both. If there are 278 dog owners and 226 cat owners, how many of the dog owners own no cat?	

15.	In a class of 5th grade students, 15 have pet cats, 12 have pet dogs, 5 have both cats and dogs, and 8 have neither cats nor dogs. How many total students are in the class?	

16.	One week, Charles spent $43 on 3 bags of Frisk-o-Treats and 4 bags of Savory Salmon treats for his cats. The next week he bought 3 bags of Frisk-o-Treats and 6 bags of Savory Salmon treats for $54.00. Based on this information, figure out the price of one bag of each type of cat food.	*Frisk-o-Treats: $_____* *Savory Salmon: $_____*

17.		

🐹 × 🐕 = **16**

🐹 + 🐱 + 🐕 = **27**   🐕 × 🐱 + 🐠 = **?**

🐠 + 🐠 + 🐹 = **48**

🐹 × 🐕 × 🐹 = **32**

18.	Kevin is given $100 to buy fish pets. He must spend all the money and he must buy 100 fish. He must also choose at least one of each fish pet. The fish pets and their prices are: Guppies @ $0.25 each Blue Damsels @ $1.00 each Yellow Tangs @ $15.00 each How many Guppies, Blue Damsels, and Yellow Tangs must Kevin buy?	*Guppies: _____* *Blue Damsels: _____* *Yellow Tangs: _____*

The 2020 Fall Math Challenge Tournament will be ONLINE. More information is available at
https://www.mathinaction.org/math-challenge-tournament.html.