




Welcome to Math Challenge #10. In this math challenge set, we will work on math problems involving pets. They are fun and silly at times, but they give us the opportunity to develop a deeper understanding of some practical applications of mathematics. Let's try to solve some (or all 😊). Don't forget to ask for help if you are stuck.

Fourth Grade and above: solve at least 12 problems.

For tournament format, levels/divisions, and sample problems, please visit [2024 MCT](#).

7.	Rehan bought some goldfish and 6 mollies for his new large fish tank. Each goldfish costs \$3 and each molly costs \$4. The amount Rehan spent on goldfish is the same as the amount he spent on the mollies. How many goldfish did he buy?	
8.	Meera's pet snail begins climbing a 7-foot wall on Friday morning. Each day, it climbs up 3 feet during the day, but slips back down 2 feet each night. On which day of the week will her pet snail finally get to the top of the wall?	
9.	<p>In a pet store, Diana notices that the price of four hamsters is the same as the price of three guinea pigs. She also notices that the price of one guinea pig is the same as the price of four fancy rats. How many fancy rats can she buy for the price of one hamster?</p> 	
10.	Leanne adopted 4 puppies and named them Alfie, Jakie, Pepper, and Dash. The puppies were born on the following four dates: October 1 and December 1 of last year, and January 1 and February 1 of this year. Alfie and Jakie were born the same year. Alfie is younger than Jakie. Pepper is one month older than Dash. How many months older is Jakie than Pepper?	
11.	<p>Giselle and her dad are buying an aquarium. They decided on a large 48-gallon aquarium. For healthy fish, most tanks need a pound of gravel for each gallon of water.</p> <p>a. Giselle and her dad ended up with buying 2 cases of gravel for the 48-gallon aquarium. If the gravel is sold in bags of 2 pounds, how many bags are in a case?</p> <p>b. The store has a total of 61 clownfish. They are placed in 7 aquarium tanks and a small display aquarium on the register counter. If each of the 7 tanks has an equal number in them (and the largest possible) and the remaining clownfish are placed in the display aquarium, how many clownfish are in the display aquarium?</p>	<p>a.</p> <p>b.</p>
12.	Sixty-six dogs signed up for the local dog talent show. After the first round, 21 dogs were eliminated. 28 of the remaining contestants were considered small dogs and 31 of the remaining contestants had floppy ears. All small dogs with floppy ears got to the final. What is the minimum number of finalists?	

13.	<p>Zakaria is having a photoshoot for his 3 unique dogs and a cat. How many different ways can he arrange his pets in a row so that all the dogs are next to each other?</p> 	
14.	 <p>Lucy has a dog and a cat. Her dog weighs 32 pounds. One-third of her cat's weight is the same as one-eighth of her dog's weight. What is the weight of her cat?</p>	
15.	<p>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?</p>	
16.	<p>Two fish tanks had different amounts of water. Tank A had half as much water as Tank B. After adding 8 gallons of water to tank A and removing $\frac{1}{3}$ of water from tank B, both tanks now have the same amount of water. How much water was in Tank B at the beginning?</p>	
17.	<p>Samik has a rectangular fish tank. The length of the tank is twice its width, and the height is half the width. If the tank has a volume of 512 cubic inches, find the dimensions of the tank.</p>	
18.	<p>Mia is taking care of a group of puppies for the day. Currently she has less than twenty puppies. When she arranges the puppies in groups of 3, she found that 2 puppies are left out. When she arranges the puppies in groups of 5, and again there are 2 puppies left out. At least how many more puppies would need to be placed in her care so that there won't be any left out when she arranges them in groups of 3 and when she arranges them in groups of 5?</p>	

Solution is available on March 01, 2024
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