Name: _____ Date: _____

1. Terrance participated in tagging 95 buffalo in the national park. In the next month traveling throughout the region, Terrance spotted 14 out of 121 tagged buffalo. How many buffalo are in the park?

2. We are mixing a chemical compound with component A (7.5 parts) to a component B (2.5 parts). We have 19.5 liters of component A. How much component B do we need?

3. Suzanne, the Vet Tech mixes a solution of pet food and supplement. The supplement directions say to mix a ration of 3-part supplement to eight parts dog food (3:8) with the pet food. If there is 16 ounces of pet food, how much supplement should be added?

4. Francine, the vet tech is going to clean up a spill and mixes a 1:10 solution of bleach and water. Francine puts 8 cups of water in a bucket. How many cups of bleach will she put in the bucket to obtain the correct ratio?

5. Maxwell, the vet tech visits the local woods and he will count the deer population with the county veterinarian. This year they tag 14 deer. The next year, Maxwell visits the woods and he observes 25 deer in the north woods and 4 are tagged. How many deer do we estimate in the woods?

6. At the Smithville Animal Hospital, there are 6 Vet Techs out of 15 employees. Next year the human resources manager is planning to expand the staff to 22 employees when the new test lab is opened. How many Vet Techs should we have then if we have the same ratio?

7. We are purchasing a new windows for our clinic. The salesperson wants $^1/_3$ down. We are buying 5 smaller 36 inch wide windows that cost $209 each. We are acquiring 2 wider windows in the front of the building for $850 each. What is the total cost of the purchase? What will be the down payment check? What will the amount of the payment due?

8. Our dog should have 1300 calories per day. The food we are giving our dog has 320 calories per cup, so how many cups of dog food should our pet get per day? How much should we have for the week?

9. Our Vet recommends that our dog should have 40:100 of its dog food as protein. 50:100 should be vegetables and 10:100 should be carbohydrates. We will give our dog 12 ounces of food today, how much weight of protein, vegetables and carbohydrates will be provided?

10. In 1911, there are roughly 93,000 veterinarians and 78.2 million dogs in the United States. What is the ratio of dogs per vets in the United States?

11. We received a shipment of hay and $^1/_9$ of the product is bad. We received 5000 lbs of hay. How many pounds of the hay is bad and how many pounds of hay is acceptable?

12. Solve these fraction problems and reduce to lowest terms.

a. $\dfrac{4}{5}g + \dfrac{1}{3}g$

b. $\dfrac{7}{8}ml - \dfrac{3}{7}ml$

c. $\dfrac{2}{3}kg \times \dfrac{5}{6}$

d. $\dfrac{9}{10}lb \div \dfrac{3}{4}$