



Veterinary Science Career Development Event

Created: Feb-20

NATIONAL FFA MATH EXAM-2019

Using the following information answer questions: #1, #2, and #3.

Give 1cc/15lb of Panacur to a 28 kg dog. Repeat this dose once a day for 3 days. On hand: Panacur 100mg/mL.

1. How many mL per dose? [5 points]
2. How many mL per day? [5 points]
3. How many mL per total treatment? [5 points]

Using the following information answer questions: #4, #5, and #6

Give 10mg/lb. of Cephalexin to a 25lb dog. Give this dose two times a day for 10 days. On hand: Cephalexin 250 mg/ capsule.

4. How many capsules per dose? [5 points]
5. How many capsules per day? [5 points]
6. How many capsules for the whole treatment? [5 points]

Using the following information answer questions: #7 and #8

Drug: Immiticide – 20 mg/mL; Dose: Give 2 mg/lb.; Dog: 42 lbs.; Cost: \$20.00/cc

7. How many mL? [10 points]
8. What is the cost of the injection? [10 points]

Tara brought her 1kg guinea pig to the vet; after the diagnosis, Dr. Puiia prescribed medication that requires a dose of 10mg/lb. and the medicine is sold as follows: 20mg/tablet.

9. How many tablets should Tara use to medicate her guinea pig? [5 points]

Using the following information answer question: #10

Tom brought Tiny his 5 lb. dog to the vet clinic. The diagnosis called for a RX of acepromazine. If the dosage is 0.025mg/lb. of Ace to a 5 lb. dog. And we only have on hand: acepromazine 10mg/mL.

10. How many mL does Tiny get? [10 points]

11. The veterinary assistant records the body temperature of a miniature horse at 102.6 degrees Fahrenheit. What is the temperature in Celsius? [5 points]

12. How would you make 250 mL of a 2% hydrogen peroxide using a 10% stock solution? [10 points]

$$C_1 = 10\%; V_1 = \text{unknown}; C_2 = 2\%; V_2 = 250 \text{ mL} \\ C_1 V_1 = C_2 V_2 \rightarrow V_1 = \frac{C_2 V_2}{C_1} \\ V_1 = \frac{(2\%) (250 \text{ mL})}{10\%}$$

$V_1 =$

13. A horse requires intravenous fluids given at a rate of 500 mL/h. How many liters will the horse receive after 7 hours? [5 points]

14. You ask a client to give her dog 90 mL of water every hour. How many ounces does this represent in the US? [5 points]

15. The vet clinic you work for gives a 15% discount on spays and neuters for animals that were adopted from the local animal shelter. An OHE includes a physical exam, CBC, Chem panel, the procedure, staff and supplies. The following is a break down on cost. Physical Exam \$15, CBC and Chem Panel \$65, OHE procedure \$95, OHE staff and supplies \$75.

How much would an OHE cost someone that adopted a dog? [5 points]

Total cost: [5 points]