



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.

Question #1. How many mls per dose?

4.1 ml

Question #2. How many mls per day?

4.1ml

Question #3. How many mls per total treatment?

12.3ml

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.

Question #4. How many capsules per dose?

1

Question #5. How many capsules per day?

2

Question #6. How many capsules for the whole treatment?

20

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

Question #7. How many mls?

4.2 mL

Question #8. What is the cost of the injection?

\$84.00

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.

Question # 9. How many tablets should Tara use to medicate her guinea pig?

1 tablet

Using the following information answer question: #10

Question # 10. Tom brought tiny his 5 lb dog to the vet clinic. The diagnosis called for an Ace Prescription. If the dosage is 0.025mg/lb of Ace to a 5 lb dog. And we only have On hand: Ace 10mg/ml.

How many mls does Tiny get?

0.0125ml

Question # 11. The veterinary assistant records the body temperature of a miniature horse at 102.6 degrees Farenheit. What is the temperature in Celsius?

39.2 C

Question # 12. How would you make 250 mL of a 2% hydrogen peroxide using a 10% stock solution?

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

$V_1 = 50 \text{ mL}$

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

$$7 \text{ h} \times \frac{500 \text{ mL}}{1 \text{ h}} \times \frac{1 \text{ L}}{1000 \text{ mL}} = 3.5 \text{ L}$$

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

$$90 \text{ mL} \times \frac{1 \text{ oz}}{30 \text{ mL}} = 3 \text{ oz (US),}$$
$$90 \text{ mL} \times \frac{1 \text{ oz}}{28 \text{ mL}} = 3.2 \text{ oz (UK)}$$

Question # 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?

Total cost: $\$250 - 15\% = \212.50