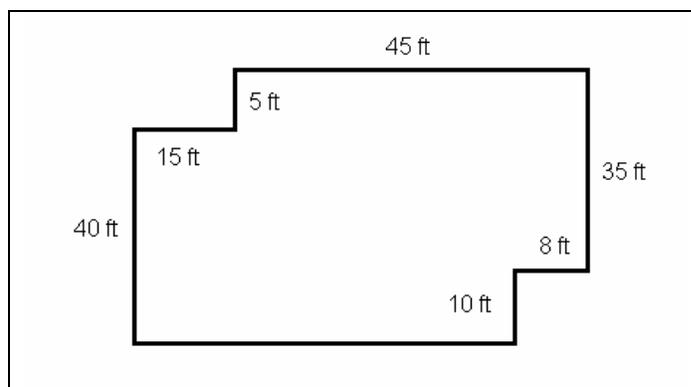


Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Lakisha, the Vet Tech wants to buy two incubators for the lab that cost \$1425. The tax on the sale is 6.5%. What is the total cost of the purchase?
2. The only vet clinic in Clarke County has contracted to test the local farmers' ponds. The animals at the Jones' farm are ill and the vet asks you to test the water. You find 9.37 million contaminates in a gallon of water. The government test form wants the total for the pond that holds 798,000 gallons. How many contaminates are in the pond?
3. The manual for the tropical fish states that each fish needs 1.5 gallons of water for each inch of fish. You have three fish that measure 19.2 cm, 22.7 cm and 32.2 cm. How many gallons of water do you need in the fish tank if water is 231 in<sup>3</sup> per gallon?

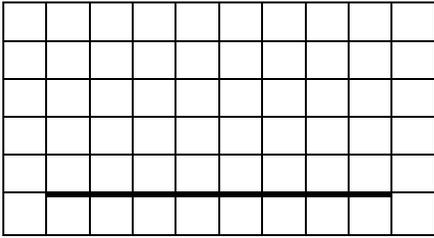
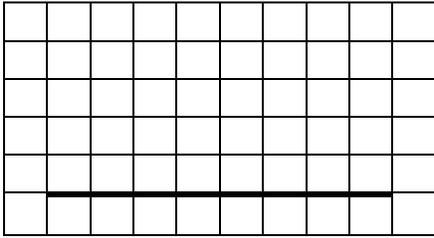
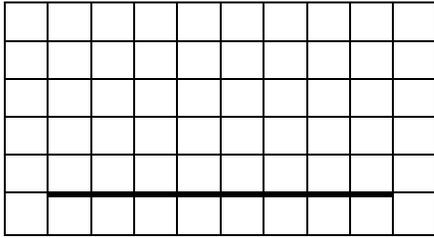
4. Samantha, the technician is charged with determining the area and perimeter of a fenced area behind the clinic building just purchased across town. The Vet has given her his sketch. What is the area and perimeter of the fenced area?



5. Sarah, the technician estimates there are 102 thousand bacteria in the cubic centimeter of blood sample. The dog has 7 pints of blood. One pint equals 473.9 cubic centimeters. Using the unit factor method, what is the estimated number of bacteria in the dog?
6. Terry, the Vet Tech mixes a solution of pet food and supplement. The supplement directions say to mix a ration of 1.5 part supplement to 14 parts dog food (1.5:14) with the pet food. If there is 6.6 ounces of pet food, how much supplement should be added?
7. A water tank at the Columbus zoo measures 24 ft x 30 ft and is 36 inches deep. How much water will it take to fill the tank if water is 231 in<sup>3</sup> per gallon?
8. Travis Mitchell, a recent Vet Tech purchases a digital microscope for \$2750. The interest rate is 5% and the loan is for two years. If the formula for simple interest is  $I=PRT$ , where  $I$  is the interest,  $P$  is the loan amount,  $R$  is the interest rate and  $T$  is the time in years, then what is the interest on the loan? Adding the Interest to the loan amount, what is the total cost of the microscope?
9. In 2005, there was an estimated 1.96 million horse owners in the United States. There are 9.2 million horses in the United States. There are 296 million people living in the United States. What is average number of horses per horse owner? What is the percent of people owning horses in the United States?

Basic College Mathematics – Week 6 Review

10. The slide on the microscope bacteria measure 0.000000025 meters long. If the Vet Tech can see 10 cell segments in the bacteria, what is the length of a cell?
11. Compute the depth of an 800 cubic foot animal pen that has a height of 9 feet. The front of the cage is 8 feet wide.
12. A water tank at the Columbus zoo measures 18 ft x 24 ft and is 18 inches deep. How much water will it take to fill the tank if water is 231 in<sup>3</sup> per gallon?
13. You are a technician at a dog food company. You measure an estimated 10.65 million impurities in a one-pound sample of dog food shipped from out of country. There is 480,000 pounds of food in the shipment. What is the estimated total amount of impurities in the shipment?
14. Draw the following:

		
A 30 degree line	A 45 degree line	A perpendicular line

15. You are in week 6 of a 8 week quarter, what percent of the quarter is left to complete?