Bat Math Challenge

1. If a bat catches 50 insects every 5 minutes, then

    a. how many insects will the bat catch in an hour?

    b. how many insects will the bat catch per second?

2. A cave in Virginia is home to 500 little brown bats in the summer. If each of the little brown bats eats 1,500 insects in a night, how many insects could the bats eat in one night? If this colony experienced an 80 percent decrease due to white-nose syndrome, how many bats would remain? How many insects could the bats eat after the disease impacted the colony?

3. A little brown bat eats half, or 50 percent, of its body weight in a single evening. The average little brown bat weighs 0.2 ounces. The weight of 1,200 mosquito-sized insects is 0.1 ounces. That means a little brown bat can eat 1,200 mosquitoes in one night! How many ounces of mosquito-sized insects must the bat species listed below eat in a night to eat half its body weight? How many insects does that equal? Assume 1,200 insects = 0.1 ounces. Complete the table. The first two are done for you.

Bat Species	Average Weight in Ounces	Half Its Weight in Ounces	Weight of 1,200 Insects in Ounces	Quotient (Half Weight Divided by Insect Weight)	Convert Ounces to Insects
Little Brown Bat	0.2	0.1	0.1	1	1,200 x 1 = 1,200 Insects
Eastern Red Bat	0.35	0.175	0.1	1.75	1,200 x 1.75 = 2,100 Insects
Hoary Bat	0.9				
Silver-haired Bat	0.3				
Indiana Bat	0.24				
Southeastern Bat	0.22				