Complete each of the following problems by graphing the given data on the Quadrant I Graphs provided. Make sure to think about reasonable scales to use to graph these equations.

1. The equation $y=25,000 x$ describes the average number of species $y$ that become extinct in $x$ years. Complete the table and graph the equation.
Complete the table

| $\mathbf{x}$ | $\mathbf{y}$ |
| :---: | :---: |
| Years | Extinct <br> Species |
| 0 | 0 |
| 2 |  |
| 4 |  |
| 6 |  |

## EXTINCT SPECIES


2. Mark wants to have a laser tag party. The cost of the party, $y$, can be modeled by the equation $y=5 x+20$, where x is the number of guests. Complete the table and graph the equation.
Complete the table

| $\mathbf{x}$ | $\mathbf{y}$ |
| :---: | :---: |
| \# of Guests | Cost (\$) |
|  |  |
| 3 | 35 |
| 5 |  |
| 7 |  |
| 8 |  |

## Cost of Party


3. The table shows the cost to rent different items.

| Item | Deposit <br> (\$) | Cost per Hour <br> (\$) |
| :---: | :---: | :---: |
| Mountain bike | 15 | 4.25 |
| Scooter | 25 | 2.50 |

a. Write a function rule to represent each situation.

## Mountain Bike

Scooter
b. Complete each function table to find the total savings for $2,3,4$, or 5 hours.

| Mountain Bike |  |  |
| :---: | :---: | :---: |
| $x$ |  | $y$ |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |


| Scooter |  |  |
| :---: | :---: | :---: |
| $x$ |  | $y$ |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |

c. Graph the functions on the same coordinate plane. Are the functions continuous or discrete? Explain.

d. Will the mountain bike or scooter cost more to rent for 8 hours?

Mountain Bike
$\qquad$
e. How much is the cost to rent the mountain bike for 8 hours? $\qquad$

