$\qquad$

Find the Average Rate of Change given the following intervals for the table.

| $x$ | $y$ |
| :--- | :--- |
| 0 | 1 |
| 1 | 2 |
| 2 | 4 |
| 3 | 8 |
| 4 | 16 |


| $x$ | $y$ |
| :--- | :--- |
| 0 | 1 |
| 1 | 2 |
| 2 | 4 |
| 3 | 8 |
| 4 | 16 |

1. What is the average rate of change between $\mathrm{x}=0$ and $\mathrm{x}=4$ ?
2. What is the average rate of change between $\mathrm{x}=1$ and $\mathrm{x}=3$ ?
3. What is the average rate of change between [-2, 2]?
4. What is the average rate of change between [-1, 1]?x

| Average NBA Athlete's Salary |  |
| :---: | :---: |
| Years | Annual Salary |
| Since 1980 | (thousands of dollars) |
| $(t)$ | $(S)$ |
| 0 | 170 |
| 5 | 325 |
| 10 | 750 |
| 15 | 1,900 |
| 16 | 2,000 |
| 17 | 2,200 |
| 18 | 2,600 |

3. Look at the table above. What is the average rate of change between 1985 and 1997.
4. Look at the table above. What is the average rate of change between 1990 and 1998.

Find the average rate of change on the given interval

1. $f(x)=2^{x}$ between $x=2$ and $x=4$
2. $f(x)=2^{x}$ between $x=1$ and $x=3$
3. $f(x)=3(2)^{x}$ between $x=2$ and $x=4$
4. $\mathrm{f}(\mathrm{x})=3^{\mathrm{x}}$
$[3,5]$
5. $f(x)=2(3)^{x}$
$[1,2]$
6. $f(x)=3(2)^{x}$ between $x=1$ and $x=3$
7. $f(x)=2(3)^{x} \quad[3,5]$

Find the average rate of change on the given interval

1. Find the AROC from $\mathrm{x}=-3$ to $\mathrm{x}=-1$

2. Find the AROC from $[1,3]$

3. Find the AROC from $\mathrm{x}=0$ to $\mathrm{x}=15$

4. Find the AROC from $x=5$ to $x=6.5$

5. Find the Average Rate of Change for each graph from [0, 1].

