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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Consider the following set of data:

|  |  |
| --- | --- |
| **x** | **y** |
| 1 | 13.08 |
| 2 | 20.97 |
| 3 | 28.86 |
| 4 | 36.75 |
| 5 | 44.64 |
| 6 | 52.53 |

 |

|  |
| --- |
| **Ratios**  |
| Of 1st and 2nd terms |  |
| Of 2nd and 3rd terms |  |
| Of 3rd and 4th terms |  |
| Of 4th and 5th terms |  |
| Of 5th and 6th terms |  |

Fill out the following table:

|  |
| --- |
| **Differences** |
| Between 1st and 2nd terms |  |
| Between 2nd and 3rd terms |  |
| Between 3rd and 4th terms |  |
| Between 4th and 5th terms |  |
| Between 5th and 6th terms |  |

 |
| 2. Would the data best be modeled by a linear function or an exponential function? How do you know? |
| 3. Write a recursive formula for the data: | 4. Write an explicit formula for the data: |
| 5. Consider the following set of data:

|  |  |
| --- | --- |
| **x** | **y** |
| 1 | 7.3 |
| 2 | 8.76 |
| 3 | 10.512 |
| 4 | 12.614 |
| 5 | 15.137 |
| 6 | 18.165 |

 | Fill out the following table:

|  |
| --- |
| **Differences** |
| Between 1st and 2nd terms |  |
| Between 2nd and 3rd terms |  |
| Between 3rd and 4th terms |  |
| Between 4th and 5th terms |  |
| Between 5th and 6th terms |  |

|  |
| --- |
| **Ratios**  |
| Of 1st and 2nd terms |  |
| Of 2nd and 3rd terms |  |
| Of 3rd and 4th terms |  |
| Of 4th and 5th terms |  |
| Of 5th and 6th terms |  |

 |
| 6. Would the data best be modeled by a linear function or an exponential function? How do you know? |
| 7. Write a recursive formula for the data: | 8. Write an explicit formula for the data: |
| 9. Consider the following set of data:

|  |  |
| --- | --- |
| **x** | **y** |
| 1 | 180 |
| 2 | 135 |
| 3 | 94.5 |
| 4 | 68.99 |
| 5 | 51.05 |
| 6 | 36.76 |

 |

|  |
| --- |
| **Ratios**  |
| Of 1st and 2nd terms |  |
| Of 2nd and 3rd terms |  |
| Of 3rd and 4th terms |  |
| Of 4th and 5th terms |  |
| Of 5th and 6th terms |  |

Fill out the following table:

|  |
| --- |
| **Differences** |
| Between 1st and 2nd terms |  |
| Between 2nd and 3rd terms |  |
| Between 3rd and 4th terms |  |
| Between 4th and 5th terms |  |
| Between 5th and 6th terms |  |

 |
| 10. Would the data best be modeled by a linear function or an exponential function? How do you know? |
| 11. Write a recursive formula for the data: | 12. Write an explicit formula for the data: |
| 13. Consider the following set of data:

|  |  |
| --- | --- |
| **x** | **y** |
| 1 | 45.9 |
| 2 | 42.2 |
| 3 | 38.62 |
| 4 | 35.19 |
| 5 | 31.69 |
| 6 | 28.08 |

 | Fill out the following table:

|  |
| --- |
| **Differences** |
| Between 1st and 2nd terms |  |
| Between 2nd and 3rd terms |  |
| Between 3rd and 4th terms |  |
| Between 4th and 5th terms |  |
| Between 5th and 6th terms |  |

|  |
| --- |
| **Ratios**  |
| Of 1st and 2nd terms |  |
| Of 2nd and 3rd terms |  |
| Of 3rd and 4th terms |  |
| Of 4th and 5th terms |  |
| Of 5th and 6th terms |  |

 |
| 14. Would the data best be modeled by a linear function or an exponential function? How do you know? |
| 15. Write a recursive formula for the data: | 16. Write an explicit formula for the data: |