GRAPHING RELATIONS AND FUNCTIONS

A relationship between variables is often shown as a continuous graph. This relationship can be increasing, decreasing, or constant. When reading a graph, we always read from left to right.

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|  Increasing  The two segments are increasing at different rates. What words could describe the rate of increase of the first segment?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What words could describe the rate of increase of the second segment?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Decreasing  The two segments are increasing at different rates. What words could describe the rate of decrease of the first segment?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What words could describe the rate of decrease of the second segment?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  Constant  The segment remains constant. How could you describe this rate of change?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Varying rates of change1.2.3.4.5. |

1. **Each day several leaves fall from a tree. One day a gust of wind blows off many leaves. After that, the leaves gradually fall off until there are no more leaves.**

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| **Key Words** |  **Segment Description** |
| Each day several leaves fall |  |
| Wind blows offmany leaves |  |
| Gradually fall off until there are no more leaves |  |



**The air temperature increased steadily for several hours and then remained constant. At the end of the day, the temperature increased slightly before dropping sharply.**

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| **Key Words** |  **Segment Description** |
| **The air temperature increased steadily** |  |
| **then remained constant** |  |
| **temperature increased slightly** |  |

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| **dropping sharply** |  |