**1. Complete the following statement.**

|  |  |
| --- | --- |
| **a.** | \_\_\_\_\_\_\_\_\_\_\_ are critical points at which a function changes its increasing or decreasing behavior. At these points, the function has a maximum or a minimum value, either relative or absolute. |
| **b.** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the graph changes its shape, but not it’s increasing or decreasing behavior. |

**2. Write T for true or F for false**

|  |  |  |
| --- | --- | --- |
| **a.** | A relative maximum value of a function is the greatest -value on some interval of the domain. |  |
| **b.** | The least value that a function assumes over its domain is called the absolute maximum. |  |

**Multiple Choices**

**3.** Which of the following is the average rate of change of over the interval

|  |  |  |
| --- | --- | --- |
| **a.** |  |  |
| **b.** |  |  |
| **c.** |  |  |

**4.** Which of the following is the average rate of change of over the interval

|  |  |  |
| --- | --- | --- |
| **a.** |  |  |
| **b.** |  |  |
| **c.** |  |  |

**5.** Which of the following is the average rate of change of over the interval

|  |  |  |
| --- | --- | --- |
| **a.** |  |  |
| **b.** |  |  |
| **c.** |  |  |

**ANSWERS**

**1. Complete the following statement.**

|  |  |
| --- | --- |
| **a.** | Extrema are critical points at which a function changes its increasing or decreasing behavior. At these points, the function has a maximum or a minimum value, either relative or absolute. |
| **b.** | At points of inflection, the graph changes its shape, but not it’s increasing or decreasing behavior. |

**2. Write T for true or F for false**

|  |  |  |
| --- | --- | --- |
| **a.** | A relative maximum value of a function is the greatest -value on some interval of the domain. | **T** |
| **b.** | The least value that a function assumes over its domain is called the absolute maximum. | **F** |

**Multiple Choices**

**3.** Which of the following is the average rate of change of over the interval

|  |  |  |
| --- | --- | --- |
| **a.** |  |  |
| **b.** |  |  |
| **c.** |  |  |

**4.** Which of the following is the average rate of change of over the interval

|  |  |  |
| --- | --- | --- |
| **a.** |  |  |
| **b.** |  |  |
| **c.** |  |  |

**5.** Which of the following is the average rate of change of over the interval

|  |  |  |
| --- | --- | --- |
| **a.** |  |  |
| **b.** |  |  |
| **c.** |  |  |