**Domain: Functions 35%**

|  |  |
| --- | --- |
| 1.  F.IF.7  3 –  – 0  1  –2  7  2 –1  – | Which equation represent the graph of the exponential function given to the right? |
| 2.  F.BF.1a | Which function represents the data in the table?   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ***x*** | 3 | 6 | 10 | 15 | | ***y*** | 2 .5 | 4 | 6 | 8 .5 |  1. c. 2. d. |
| 3.  F.BF.3 | Identify the vertex of the quadratic function .   1. (3, -4) c. (-3, -4) 2. (3, 4) d. |
| 4.  F.LE.1a | Which scenario represents exponential growth?   1. A kudzu vine grows 12 inches per day. 2. A candle melts at a rate of 2 mm per minute. 3. A population of flies doubles every five days. 4. A ball bounces half of its previous distance per bounce. |
| 5.  F.LE.5 | Deborah's weekly salary can be modeled by the function *y* = 600*x* + 500, where *x* represents the number of cars that she sells in one week.  Which describes the meaning of the slope in the equation?   1. She makes $500 without selling any cars. 2. She makes $600 without selling any cars. 3. Deborah's salary increases $500 per car that she sells. 4. Deborah's salary increases $600 per car that she sells. |
| 6.  F.IF.9 | The table and graph show two different functions.    How does the maximum of *f(x)* compare from the maximum of *g(x)*?   1. *f(x)* has a maximum value of 9, while *g(x)* has a maximum value of 3. 2. *g(x)* has a maximum value of 10, while *f(x)* has a maximum value of 9. 3. *f(x)* has a maximum value of 6, while *g(x)* has a maximum value of 3 4. *g(x)* has a maximum value of 10, while *f(x)* has a maximum value of 6. |
| 7.  F.BF.2 | Which of the following attribute describes the sequence: 24, 16, 8, 0?   1. The sequence is a discrete linear function 2. The sequence is a continuous linear function 3. The sequence is a discrete exponential function 4. The sequence is a continuous exponential function |
| 8.  F.BF.2 | Which of the following explicit formula describes the sequence: 24, 16, 8, 0? |
| 9.  F.IF.5 | Kiara was driving to visit her grandmother. The graph models her trip   * x represents the time she traveled in hours * y represents the distance she traveled   What is the reasonable domain for the graph? |
| 10.  F.LE.2 | Consider the graph to the right |
| 11.  F.IF.6 | Consider the graph of the exponential function  What is the average rate of change for  the function over the interval [1,4]. |