**Module 2 Test Review**

(Logarithmic Functions 2.1 – 2.5)

**Part I**: *Multiple Choice*

1. If , is it possible for *c* to equal a negative number? Explain.

2. Simplify ?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

3. Expand

4. Write equivalent statements to the following argument. .

5. We know that and are *inverses* of one another. What can you conclude about this inverse relationship?

6. Simplify

a.

b.

c.

d.

7. If , then

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

8. What is the base of ?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |

9. Find a point on the graph of ?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

10. What is the first step in solving 9 for *x*?

**Simplify**

|  |  |  |  |
| --- | --- | --- | --- |
| 11. |  |  |  |
| 12. |  |  |  |
| 13. |  |  |  |
| 14. |  |  |  |
| 15. |  |  |  |

**Part III**: *Short Answer*

*Answer the following questions* ***without*** *using a calculator.*

(Hint: , , , )

16. 17. 18.

19. 20. 21.