

## AFM Unit 4 Vocabulary - Study Guide

### Matching

- |                       |                              |
|-----------------------|------------------------------|
| a. Function           | n. Evaluate                  |
| b. Domain             | o. Quadratic Function        |
| c. Range              | p. Square Root Function      |
| d. Increasing         | q. Absolute Value Function   |
| e. Decreasing         | r. Exponential Function      |
| f. Constant           | s. Parent Function           |
| g. Interval Notation  | t. Isometric Transformation  |
| h. Union              | u. Reflection                |
| i. Vertical Line Test | v. Horizontal Transformation |
| j. Asymptote          | w. Vertical Transformation   |
| k. Piecewise Function | x. Vertical Stretch/Shrink   |
| l. Continuous         | y. Horizontal Stretch/Shrink |
| m. Discontinuous      | z. Critical Points           |

- \_\_\_\_\_ 1. “U” combines multiple sets.
- \_\_\_\_\_ 2. A transformation where the graph is affected by the value “a” for  $f(a \cdot x)$ .
- \_\_\_\_\_ 3. As x increases, y stays the same.
- \_\_\_\_\_ 4. A function in the form  $y = ab^x$ , where  $a \neq 0$ ,  $b > 0$ , and  $b \neq 0$ .
- \_\_\_\_\_ 5. A transformation where the graph is affected by the value “a” for  $a \cdot f(x)$ .
- \_\_\_\_\_ 6. As x increases, y decreases.
- \_\_\_\_\_ 7. A function written as  $f(x) = |x|$ , where  $f(x) \geq 0$  for all values of x.
- \_\_\_\_\_ 8. A boundry line (imaginary) that a graph gets infinitely close to but never crosses.
- \_\_\_\_\_ 9. A rule that assigns each element, x, in a set “A” to exactly one element, y, in a set “B”.
- \_\_\_\_\_ 10. When the pieces of a piecewise function connect with each other so that when you draw the graph you do not have to pick up you pencil.

Name: \_\_\_\_\_

ID: Z

- \_\_\_\_\_ 11. All possible input values (x-values).
- \_\_\_\_\_ 12. A function that contains a square root of a variable.
- \_\_\_\_\_ 13. A transformation where the graph moves “c” units given that  $f(x + c)$  or  $f(x - c)$ .
- \_\_\_\_\_ 14. A piecewise function where there are holes, jumps, or gaps.
- \_\_\_\_\_ 15. If a vertical line intersects the graph more than once, then the graph is not a function.
- \_\_\_\_\_ 16. Used when writing domain and range ( ) or [ ].
- \_\_\_\_\_ 17. The simplest of graphs in a family.
- \_\_\_\_\_ 18. As x increases, y increases.
- \_\_\_\_\_ 19. To find the value of an expression.
- \_\_\_\_\_ 20. A function defined by 2 or more equations with restrictions in the domain.
- \_\_\_\_\_ 21. The places where there is a change in the domain for each piece of a piecewise functions.
- \_\_\_\_\_ 22. A function described by the equation  $f(x) = ax^2 + bx + c$ , where  $a \neq 0$ .
- \_\_\_\_\_ 23. A transformation where the graph moves “c” units given that  $f(x) + c$  or  $f(x) - c$ .
- \_\_\_\_\_ 24. All possible output values (y-values).
- \_\_\_\_\_ 25. A transformation in which the graph is only shifted vertically or horizontally, with NO shrinking or stretching.
- \_\_\_\_\_ 26. A transformation in which the graph is reflected across the x- or y- axis.

**AFM Unit 4 Vocabulary - Study Guide  
Answer Section****MATCHING**

- |            |        |
|------------|--------|
| 1. ANS: H  | PTS: 1 |
| 2. ANS: Y  | PTS: 1 |
| 3. ANS: F  | PTS: 1 |
| 4. ANS: R  | PTS: 1 |
| 5. ANS: X  | PTS: 1 |
| 6. ANS: E  | PTS: 1 |
| 7. ANS: Q  | PTS: 1 |
| 8. ANS: J  | PTS: 1 |
| 9. ANS: A  | PTS: 1 |
| 10. ANS: L | PTS: 1 |
| 11. ANS: B | PTS: 1 |
| 12. ANS: P | PTS: 1 |
| 13. ANS: V | PTS: 1 |
| 14. ANS: M | PTS: 1 |
| 15. ANS: I | PTS: 1 |
| 16. ANS: G | PTS: 1 |
| 17. ANS: S | PTS: 1 |
| 18. ANS: D | PTS: 1 |
| 19. ANS: N | PTS: 1 |
| 20. ANS: K | PTS: 1 |
| 21. ANS: Z | PTS: 1 |
| 22. ANS: O | PTS: 1 |
| 23. ANS: W | PTS: 1 |
| 24. ANS: C | PTS: 1 |
| 25. ANS: T | PTS: 1 |
| 26. ANS: U | PTS: 1 |

B   11.

  P   12.

  V   13.

  M   14.

  I   15.

  G   16.

  S   17.

  H   1.

  D   18.

  Y   2.

  N   19.

  F   3.

  K   20.

  R   4.

  Z   21.

  X   5.

  O   22.

  E   6.

  W   23.

  Q   7.

  C   24.

  J   8.

  T   25.

  A   9.

  U   26.

  L   10.