***FRIDAY, 8.9.24***

**ENTRY WORK:**

Introduce ourselves to each other.

Discuss the course overview, syllabus, requirements, and rules/procedures for this class.

Join Google Classroom at classroom.google.com. The class code is jxmuipl.

Display

**CHAPTER 1: *Functions and Graphs***

**INSTRUCTIONAL OBJECTIVES:**

* Define a *relation*.
* Define a *function*.
* Perform operations with functions, addition, subtraction, multiplication, division, and composition.

**Technology:** Graphing calculator (TI-83 or TI-84).

**CLASSWORK/HOMEWORK:**

1. At your next class meeting, turn in your completed, signed, and dated *Classroom/Group Procedures Agreement*.
2. **PRE-ASSESSMENT:**

**Choose the best answer for each question. Explain.**

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| **1.** | Which of the relations below is a function?     |
| **Choose:**Top of Form{(2,3), (3,4), (5,1), (6,2), (2,4)}{(2,3), (3,4), (5,1), (6,2), (7,3)}{(2,3), (3,4), (5,1), (6,2), (3,3)} Bottom of Form |  |

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|  **2.** | Given the relation *A* = {(5,2), (7,4), (9,10), ( *x*, 5)}.  Which of the following values for *x* will make relation *A* a function?   |  |
| **Choose:**Top of Form794 Bottom of Form |

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|  **3.** |  | The following relation is a function.{(10,12), (5,3), (15, 10), (5,6), (1,0)}   |
|   | **Choose:**Top of FormTrueFalseBottom of Form |

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| **4.** | Which of the relations below is a function? |
| **Choose:**Top of Form{(1,1), (2,1), (3,1), (4,1), (5,1)}{(2,1), (2,2), (2,3), (2,4), (2,5)}{(0,2), (0,3), (0,4), (0,5), (0,6)} Bottom of Form |  |

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| **5.** | The graph of a relation is shown on the next page. Is this relation a function? | http://www.regentsprep.org/regents/math/algebra/ap3/fixpic3.gif |
| **Choose:**Top of FormYesNoCannot be determined from a graphBottom of Form |

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| **6.** |  | Is the relation depicted in the chart below a function?

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| **X** | 0 | 1 | 3 | 5 | 3 | 9 |
| **Y** | 8 | 9 | 10 | 6 | 10 | 7 |

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|   | **Choose:**Top of FormYes  No  Cannot be determined from a chartBottom of Form |

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| **7.** | The graph of a relation is shown on the next page.  Is the relation a function? | http://www.regentsprep.org/regents/math/algebra/ap3/fixpic4.gif |
| **Choose:**Top of FormYesNoCannot be determined from a graphBottom of Form |

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| **8.** | Is the relation depicted in the chart below a function?

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| **X** | -2 | -1 | 0 | 1 | 2 | 3 |
| **Y** | 5 | 5 | 5 | 5 | 5 | 5 |

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| **Choose:**Top of FormYesNoCannot be determined from a chartBottom of Form |

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| **9.** | http://www.regentsprep.org/regents/math/algebra/ap3/fixpic5.gif | The graph of a relation is shown at the left.Is the relation a function? |
|   | **Choose:**Top of FormYesNo Cannot be determined from a graph Bottom of Form |

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|  **10.** | The graph of a relation is shown at the right.Is the relation a function? | http://www.regentsprep.org/regents/math/algebra/ap3/fixpic6.gif |
| **Choose:**Top of FormYes  NoCannot be determined from a graphBottom of Form |

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| **11.** | Given *f* (*x*) = 3*x* + 7, find f (5). |
| **Choose:**Top of Form15 22 42 Bottom of Form |  |

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| **12.** | Given *f* (*x*) = 2*x*² - 3*x* + 6, find f (2.5).  |
| **Choose:**Top of Form1123.5 76Bottom of Form |  |

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| **13.** | Which graph represents a function?  |
| **Choose:**Top of Formhttp://www.regentsprep.org/regents/math/algebra/ap3/FuncPr67.gif              http://www.regentsprep.org/regents/math/algebra/ap3/FuncPr68.gif http://www.regentsprep.org/regents/math/algebra/ap3/FuncPr69.gif                 http://www.regentsprep.org/regents/math/algebra/ap3/FuncPr70.gifBottom of Form |  |

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| **14.**  | Given *f* (*x*) = 2x + 3, g(x) = 3x2, and h(x) = 4, find the following:1. f (2) = \_\_\_\_\_\_\_\_\_\_\_\_
2. g (2) = \_\_\_\_\_\_\_\_\_\_\_\_
3. h (2) = \_\_\_\_\_\_\_\_\_\_
4. (f + g) (x) = \_\_\_\_\_\_\_\_\_\_\_
5. (fg) (x) = \_\_\_\_\_\_\_\_\_\_\_
6. (f/h) (x) = \_\_\_\_\_\_\_\_\_\_
7. (f – g) (-1) = \_\_\_\_\_\_\_\_\_
8. (gf) (3) = \_\_\_\_\_\_\_\_\_\_\_\_
9. f(g(x)) = \_\_\_\_\_\_\_\_\_\_
10. (f o g) (x) = \_\_\_\_\_\_\_\_\_\_
11. g(f(x)) = \_\_\_\_\_\_\_\_\_\_\_\_
12. (g o f) (x) = \_\_\_\_\_\_\_\_\_\_\_
13. (f o g) (-1) = \_\_\_\_\_\_\_\_\_\_\_
14. (h o f) (-123) = \_\_\_\_\_\_\_\_\_\_

***MONDAY, 8.12.24*****CLASS WORK/HOMEWORK:**1. Turn in in your signed and dated *Classroom/Group Procedures Agreement*.
2. Discuss the pre-assessment.
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