Algebra 2 Fall Final Review Part I Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# 1-2 Describe the Correlation # 3 – 5 Determine if it represents a function.

|  |  |  |
| --- | --- | --- |
| 1)  | 2)  | 3) {(0,0),(1,-1),(2,-4),(3,-9),(4,-10)}4) {(2,-6),(2,-2),(2,0),(2,3)}5) {(3,2),(4,2),(5,3),(6,3)} |

# 6 – 9 Given , , and . FIND:

|  |  |  |  |
| --- | --- | --- | --- |
| 6) f(3) | 7) g(0)  | 8) h(-2) | 9) g(-3) |

# 10 – 14 Describe the transformation and graph.

|  |  |  |  |
| --- | --- | --- | --- |
| 10)  | 11)  | 12)  | 13) $y=-(x+1)^{2}+2$ |

#14 – 16 Find the slope given the following information.

|  |  |  |
| --- | --- | --- |
| 14) (3,-2) (-4,-1) | 15)  | 16)  |

#17 – 18 Given the slope and y – intercept, write the linear equation in slope intercept form and graph the lines

|  |  |
| --- | --- |
| 17) slope: $\frac{3}{2}$ , y – intercept : -2 | http://mathbits.com/MathBits/StudentResources/GraphPaper/10x10.gif18) slope: $-\frac{1}{3}$ y – intercept : 1 |

#19 – 22 Write the equation of a line that…

|  |  |
| --- | --- |
| 19) parallel to #21 and passes through the point (4, 1) in slope – intercept form | 20) perpendicular to #22 and passes through the point (-2, 3) in slope intercept form |
| 21) passes though the points (-3, -5) and ( 3, -7) in slope intercept form. | 22) What is the slope of a line that is perpendicular to a line with a slope of 2? |

#23 – 27: Solve the equation, inequality, or absolute value.

|  |  |  |
| --- | --- | --- |
| 23)   | 24)  | 25)  |
| 26)  |  27)  |

#28 – 30 Graph each inequality.

|  |  |  |
| --- | --- | --- |
| http://mathbits.com/MathBits/StudentResources/GraphPaper/10x10.gif28)  | http://mathbits.com/MathBits/StudentResources/GraphPaper/10x10.gif29)  | http://mathbits.com/MathBits/StudentResources/GraphPaper/10x10.gif30) http://mathbits.com/MathBits/StudentResources/GraphPaper/10x10.gif |

Algebra 2 Fall Final Review Part II Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# 1 – 4 Use the matrix A below to find:

|  |  |  |  |
| --- | --- | --- | --- |
| 1) A12 | 2) A32 | 3) A22 | 4) Which is greater: A23 or A32?  |



# 5 – 6 Find the sum or difference if possible.

|  |  |
| --- | --- |
| 5)  | 6)  |
| 7) If A=and B=what are the dimensions of A \* B? | 8) Find A\*B in #7. |

# 9 – 10 Find the Determinant #11 -12 Find the inverse

|  |  |  |  |
| --- | --- | --- | --- |
| 9)  | 10)  | 11)   | 12)  |

# 13 – 15 Solve using Matrices

|  |  |  |
| --- | --- | --- |
| 13)  | 14)   | 15)  |
| 16) Solve for x and y  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17) Which point maximizes the following objective function: P = 3x + 5y? a. (0, 5) b. (2, 3) c. (8,0) d. (1, 4) | 18) Does the following table represent a linear or quadratic regression?

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

Find the model that best fits this situation: |

# 19 – 21 Find the vertex

|  |  |  |
| --- | --- | --- |
| 19)   | 20)  | 21)  |

#22 – 25 Find the zeros

|  |  |  |  |
| --- | --- | --- | --- |
| 22)  | 23)  | 24)  | 25)  |

# 26 – 27 Find the Domain and Range

|  |  |
| --- | --- |
| 26)  | 27)  |

Simplify (no negative exponents)

|  |  |  |  |
| --- | --- | --- | --- |
| 28)  | 29)  | 30)  | 31)  |

# 32 – 35 Simplify (no negatives under radicals or radicals in denominator)

|  |  |  |  |
| --- | --- | --- | --- |
| 32)  | 33)  | 34)  | 35)  |

#36 – 41 Simplify (no i’s in the denominator)

|  |  |  |
| --- | --- | --- |
| 36)  | 37)  | 38)  |
| 39)  | 40)  | 41)  |