Algebra 2 TEST 1.1 Review DO ON OWN PAPER!

I. Simplify NO WORK…NO CREDIT!

|  |  |  |
| --- | --- | --- |
| 1. 12÷2∙3+7 | 22∙9÷2∙3-1  | 3.  |
| Use the graph to match the lines with the given information.Which line has:4. a y-intercept of 2?5. an x-intercept of 2?6. a slope of 7. a slope of –2?9. a slope of 1? |



II. Write the following in interval notation.

|  |  |
| --- | --- |
| 10.  | 11.  |
| 12.  | 13.   |

III Write the following as an inequality in set notation.

|  |  |
| --- | --- |
| 14.  | 15.   |

IV. Simplify.

|  |  |  |
| --- | --- | --- |
| 16.  | 17.  | 18.  |

V. Evaluate when  and .

|  |  |  |
| --- | --- | --- |
| 19.  | 20.  | 21.  |

VII. WORD PROBLEM.

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| 23.Write an algebraic expression for the mileage cost of renting a U-HAUL if there is a flat rate of $75 and $0.57 per mile.1. How much would it cost to go 200 miles?
 |

VIII Are the following functions? Why or why not?

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24.  | 25.  | 26.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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 | 27.  |

IX. State the domain and range for each graph in interval notation.

|  |  |
| --- | --- |
| 28.  | 29.  |

X. Evaluate each function at the given value:

|  |  |  |
| --- | --- | --- |
| 30. Find  and . | 31. Find  and . | 32. Given the graph, find , , and . |

XI. Another WORD PROBLEM.

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| 33. An electrician charges a service charge of $60 plus $35 an hour. Write a function to model what he charges. What would he make if he worked 3 hours? |

Graph each:

|  |  |
| --- | --- |
| 34.   | 35. a line with a slope of 3 through (-3,1) |

Determine if the data represents a linear function.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 36.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| x | -2 | -1 | 0 | 1 |
| Y | 11 | 8 | 5 | 2 |

 | 37.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| x | -2 | -1 | 0 | 1 |
| Y | 8 | 12 | 17 | 23 |

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Solve the following.

|  |  |  |
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| 38. a – 8 = 23 | 39. 2(3x + 8) = 10 | 40. 5b – 17 = b +7 |
| 41. 3(y – 2) – 3(2y – 1) = 32 | 42. $\frac{7}{4}=\frac{c-5}{3}$ | 43. 6(x + 3) ≥ 42 |