Algebra 2

Unit 1 Part 1 Test Review

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block \_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_1.Which of the following sets of numbers does **not** contain .

a. real b. rational c. irrational d. all of these

\_\_\_\_\_\_\_\_2.Which property of addition is illustrated by the statement (a + b) + c = a + (b + c)?

1. Inverse b. identity c. associative d. commutative

\_\_\_\_\_\_\_\_3.What is the value of 163/2?

\_\_\_\_\_\_\_\_4.What is the value of 5-2 in fraction form?

\_\_\_\_\_\_\_\_5. What does 1010 equal? (Would you be able to prove why?!)

6. Evaluate the expression and write your answer in fraction form. 6.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

22 + (13 - 2)

(-5)3

7. Evaluate the expression. 91/2 + 20 ÷ 4 + 42(4 – 2)-4 7.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. Simplify the expression 8.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Simplify the expression  9.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. Show your exponent knowledge by simplifying the following into a single base and exponent.

1. **b.** c.

**11. Determine if the following table represents a linear relationship. SHOW HOW YOU KNOW!!**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 2 | 1 | 0 | - 1 | - 2 |
| 5 | 10 | 16 | 22 | 27 |

**Find the linear regression equation for the given data.**

12. Use the data from a Pass the Buck Activity:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *X (#people)* | 0 | 7 | 14 | 21 |
| *y (seconds)* | 0 | 5.4 | 8.5 | 12.7 |

**Slope:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Y-Intercept:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What does the slope mean?**

**Do you agree with the y-intercept? Why or why not?**

**What is the tricky thing you have to remember when data is given to you in years?**

**Write a linear equation given the following information (write BOTH the slope-intercept form and the point-slope form)**.

13. ( 5, - 3 ), ( 3, - 5 )

**Write an equation that is *parallel* to the given line and goes through the given point.**

14. y = 6x + 2 ( 8, - 3 )

**Create an equation that is *perpendicular* to the given line and goes through the given point.**

15. y = 6x + 2 ( 8, - 3 )

**Solve the following literal equation, linear inequality, and absolute value inequality.**

16. Do you recognize this formula? Solve for b.

17. Solve and graph on a number line. - ⅓x < 6

18. Solve and graph on a number line. │3 + 6x │≤ 18