***OBJECTIVES:***

* Analyze data.
* Define ratio.
* Find percentages.
* Use proportions.
* Do conversions.
* Find probabilities.
* Interpret two-way tables.
* Interpret bar charts.
* Interpret scatterplots.
* Interpret the mean, margin of error, mean, and standard deviation.
* Graph a parabola, giving the vertex, zeros, y-intercept, and axis of symmetry.

***MONDAY (9.16.24)***

**At the beginning of this class, please turn in your Take-Home Quiz.** Graph a parabola**, y = 2x2 – 5x – 6**, using your TI-84 graphing calculator. Show the points for the vertex, zeros, and y-intercept with their respective ordered pairs, accurate to one decimal point. Draw in the axis of symmetry with a hyphenated line. State the equation of your axis of symmetry.

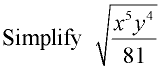
**Discuss the NEW OBJECTIVES:** Review the **Rules of Exponents**, which were assigned on Wednesday, 9.11.24, along with the problems restated below:

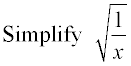
*Directions: Decide whether the following statements are TRUE or FALSE. Assume any variables represent a positive quantity.*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | |  |  |  | |  | box11a | Top of Form   |  |  | | --- | --- | | TRUE | FALSE |   Bottom of Form | |  | box12 | Top of Form   |  |  | | --- | --- | | TRUE | FALSE |   Bottom of Form | |  | box13 | Top of Form   |  |  | | --- | --- | | TRUE | FALSE |   Bottom of Form | |  | box14 | Top of Form   |  |  | | --- | --- | | TRUE | FALSE |   Bottom of Form | |  | box15 | Top of Form   |  |  | | --- | --- | | TRUE | FALSE |   Bottom of Form | | |
| |  |  |  | | --- | --- | --- | |  |  |  | |  | **Look carefully!** |  | |  | box21 | Top of Form   |  |  | | --- | --- | | TRUE | FALSE |   Bottom of Form | |  | box22 | Top of Form   |  |  | | --- | --- | | TRUE | FALSE |   Bottom of Form | |  | box2333 | Top of Form   |  |  | | --- | --- | | TRUE | FALSE |   Bottom of Form | |  | boc24RR | Top of Form   |  |  | | --- | --- | | TRUE | FALSE |   Bottom of Form | |  | boc25R | Top of Form   |  |  | | --- | --- | | TRUE | FALSE |   Bottom of Form |     **Homework:** Study for a **Test (Data Analysis and Rules of Exponents)** to be taken on Wednesday.  ***WEDNESDAY (9.18.24)***  **Test (Data Analysis and Rules of Exponents)**  **New Objectives: Simplifying Radicals.**   |  | | --- | | A square root is in **simplest form** when 1. the radicand contains no perfect square factors 2. the radicand is not a fraction 3. there are no radicals in the denominator of a fraction.  Also, t**he imaginary number "*i*" is the square root of negative one:**  **neg i**  **Class Work/Homework:** | |

(1) a1

 (2) anatg4

(3)  a6  
  
(4) 

 (5)  

(6) Simplify √-24

***FRIDAY (9.20.24****)*

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| --- |
| **Objective: Solve quadratic equations.**  A **quadratic equation** is a polynomial equation of degree **two**, which can be written in the form ax2 + bx + c = 0, where x is a variable and a, b and c are constants with a ≠ 0.  Options for solving quadratic equations:   * If there is no *bx* term, solve directly for x. * If all 3 terms of the model are present, put all three terms on one side of the equation in descending exponential order, factor, and set each factor equal to “0.” * If all 3 terms of the model are present, put all three terms on one side of the equation in descending order, and, if the result is nonfactorable over the set of integers, use the quadratic formula.   A math formula with numbers and symbols  Description automatically generated with medium confidence  **Discuss the previously assigned homework.** |
|  |

**Class Work/Homework:**

1. Simplify √(-4).
2. Simplify √(- 48).
3. Simplify √(- 200).
4. Solve 4x2 = 16.
5. Solve 4x2 = - 16.
6. Solve 2x2 + 6 = 36.
7. Solve (x + 7) (x – 5) = 0.
8. Solve x2 + 7x + 12 = 0.
9. Solve x2 +2x – 15 = 0.
10. Solve 2x2 – 10x = -3.
11. Solve x2 – 6x + 13.