***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 (9.9.24)***

**Homework check and discussion** of the 4 previously assigned data analysis problems.

**Discussion:** Graphing parabolas.

**Submit your graph of y = - x2 – 4x + 12** if you have not already done so. Show the points for the vertex, zeros, and y-intercept with their respective ordered pairs. Draw in the axis of symmetry with a hyphenated line. State the equation of your axis of symmetry.

**Class Work:** 7 data analysis problems. Be sure to explain your answers.

***WEDNESDAY (9.11.24)***

**Discuss the 7 previously assigned data analysis problems.**

**Take-Home Quiz to be turned in on Monday, 9.16.24.** Graph a parabola 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.

**Class Work/Homework:**

**NEW OBJECTIVES:** Review the **Rules of Exponents**.

|  |  |  |
| --- | --- | --- |
| Exponent Rule: | Symbolism: | In plain English ... |
| Zero Exponent | *x*0 = 1 | All numbers (not zero) raised to the zero power equal one. |
| Negative Exponent | expneg | A negative exponent tells you that the factor is on the wrong side of the fraction bar. ( *x* is not zero). |
| Product Rule | prodrule | When multiplying, and the bases are the same, ADD the exponents. |
| Quotient Rule | quotrule | When dividing, and the bases are the same, SUBTRACT the exponents. (top exponent subtract bottom exponent) |
| Power to a Power | powrule | When raising a power to a power, MULTIPLY the exponents. |
| Product to a Power | pprule | When raising a product to a power, EACH factor gets raised to the new power. |
| Quotient to a Power | quot1 | When raising a quotient to a power, BOTH top and bottom get raised to the new power. |

*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 | |

***FRIDAY (9.13.24****)* B-DAY, NO CLASS