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| **Ref.** | **Unit 4 Concepts & Definitions** | **Terms, Notation, Formulas, Diagrams** |
|  | In a Wheatstone Bridge, the circuit is said to be balanced when the output voltage is \_\_\_\_\_\_. | Zero |
|  | A variable resistor is also called a \_\_\_\_\_\_\_\_. | Potentiometer C:\Users\marvin.nelson\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\14AE5204.tmp |
|  | \_\_\_\_\_\_\_\_\_\_\_\_ vary their resistance under different lighting conditions. | Photoresistors Image result for photoresistor schematic |
|  | \_\_\_\_\_\_ systems represent information using a continuous range of values. | Analog |
|  | \_\_\_\_\_\_\_ systems represent data information using discrete (discontinuous) values; typically, high (1) or low (0). | Digital |
|  | \_\_\_\_\_\_\_ will return a value of HIGH (1) if the voltage at the digital input pin is greater than 3 volts or LOW (0) if the voltage is less than 2 volts. | *digitalRead()* |
|  | The \_\_\_\_\_\_ function returns a value between 0 and 1023, where 0 is zero volts and 1023 is 5 volts. | *analogRead()* |
|  | A method of plotting a “line of best fit” (or trendline) to a set of data is called - | Linear Regression |
|  | The \_\_\_\_\_, indicates the “goodness of the fit” of a line to a set of data. The closer to 1, the better the fit. The closer to 0, the worse the fit. | Coefficient of Determination  (r2 value) |
|  | A \_\_\_\_\_\_\_ is used to measure temperature. As its temperature increases, its resistance decreases. | Thermistor |
|  | A \_\_\_\_\_\_\_\_\_\_\_\_, using a thermistor, correlates analog values to temperature values. | Calibration Equation |
|  | Predefined \_\_\_\_\_\_\_\_ allow you to choose the best form for a variable | Data Types |
|  | If you want to use decimals in your program, you need to use the \_\_\_\_\_\_\_\_\_ data type. | *float*  (floating point) |
|  | There are 8 bits in a - | Byte |
|  | Whole number, signed (+ or -), most common data type - | *Int*  (integer) |