

## FORMULAS EXPLANATION

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- † Each formula must start with an equal (=) sign.
- † Formulas can contain the following arithmetic operators:
  - ★ Addition +
  - ★ Subtraction -
  - ★ Multiplication \*
  - ★ Division /
  - ★ Percentage %
- † Some examples of Formulas are:
  - ★ **=B2+B7** - This is a simple formula that will add the numbers in cells B2 and B7.
  - ★ **=B2+B7\*B8** - This is a more complex formula that would multiply the number in B8 times the number in B7 and then add the results of that calculation to the number in B2. This happens because in Excel, multiplication is performed first and then the addition. (See the next section on Order of Operations for an explanation of how this works.)
  - ★ **= B2\*B10/B11** - This is a more complex formula that would multiply the number in B2 times the number in cell B10 and then divide the results by the number in cell B11. This happens because in Excel multiplication is performed first and then division. (See the next section on Order of Operations for an explanation of how this works.)

### Order of Operations

- † Operations in a formula are performed in the following order:
  - ★ Multiplication
  - ★ Division
  - ★ Addition
  - ★ Subtraction
- † Putting parentheses around specific operations overrides the order of operations.
- † An example of how adding a parentheses can change the order of operations is **=(B2+B9)\*B10**
  - ★ With this formula, the two cells would be added and then the results of that calculation would be multiplied by the number in cell B10.
    - ✦ **Example**
      - **If B2 = 15**
      - **If B9 = 10**
      - **If B10 = 10**
      - **The result would be 250.**
  - ★ If the parentheses were not included in the formula, the calculation would be B10 times B9 plus B2.
    - ✦ **Example**
      - **If B2 = 15**
      - **If B9 = 10**
      - **If B10 = 10**
      - **The result would be 115.**
  - ★ The formula should be written so that you will get the desired answer.