

## Advanced Microsoft Excel

### Recap on basic formulas:

1.  $\Sigma$  Sum

= sum ( )

2. Count Numbers

= Count ( )

Now we can also use the formula for certain condition as well. Formulas like:

1. **COUNTIF**: Use this formula when you have to count certain items for given condition.

E.g. Count those items that cost **\$200 & above**.

= COUNTIF(C2:D2,">200")

2. **SUMIF**: Use this formula when you want to add the amount together in a given condition.

E.g. Find the total sales under **the category of Fruits**.

|   | A               | B           | C            |
|---|-----------------|-------------|--------------|
| 1 | <b>Category</b> | <b>Food</b> | <b>Sales</b> |
| 2 | Vegetables      | Tomatoes    | \$2,300      |
| 3 | Vegetables      | Celery      | \$5,500      |
| 4 | Fruits          | Oranges     | \$800        |
| 5 |                 | Butter      | \$400        |
| 6 | Vegetables      | Carrots     | \$4,200      |
| 7 | Fruits          | Apples      | \$1,200      |

=SUMIF(A2:A7, "Fruits", C2:C7)

Putting multiple conditions in a formula:

1. IF Formula: To be able to categorise different category in a given condition

E.g. Finding out what is **the grade for each student**.

|   | A       | B     | C         |
|---|---------|-------|-----------|
| 1 | Name    | Score | Grade     |
| 2 | Alyson  | 49    | POOR      |
| 3 | Jackson | 93    | EXCELLENT |
| 4 | Sally   | 67    | PASS      |
| 5 | Johnson | 55    | PASS      |
| 6 | Sam     | 74    | PASS      |

=IF(B2>=75,"EXCELLENT",IF(B2>=50,"PASS","POOR"))

**VLOOKUP:** When you need to find information in a large spreadsheet, or you are always looking for the same kind of information, use the VLOOKUP function.

E.g. You have to find whether certain items that you need are **In-stock**.

|    | A  | B           | C        | D            | E | F | G | H |
|----|----|-------------|----------|--------------|---|---|---|---|
| 1  | ID | Item Name   | Cost     | Stock Status |   |   |   |   |
| 2  | 1  | APPLE       | \$ 3.20  | In-stock     |   |   |   |   |
| 3  | 2  | ORANGE      | \$ 4.50  | Out-of-stock |   |   |   |   |
| 4  | 3  | WATERMELON  | \$ 12.30 | In-stock     |   |   |   |   |
| 5  | 4  | GRAPES      | \$ 5.60  | In-stock     |   |   |   |   |
| 6  | 5  | DRAGONFRUIT | \$ 3.40  | Out-of-stock |   |   |   |   |
| 7  | 6  | KIWI        | \$ 2.30  | In-stock     |   |   |   |   |
| 8  | 7  | GUAVA       | \$ 4.10  | Out-of-stock |   |   |   |   |
| 9  | 8  | PAPAYA      | \$ 6.30  | In-stock     |   |   |   |   |
| 10 | 9  | LEMON       | \$ 2.80  | Out-of-stock |   |   |   |   |
| 11 | 10 | BANANA      | \$ 4.40  | In-stock     |   |   |   |   |

=VLOOKUP(H6,B2:D11,3,FALSE)