

## Excel – Referencing Example

Lily has two children Richie and Tim. When she takes them to the doctor for their regular monthly check up, the doctor requests her to create a calorie detector. The doctor gives her a handout to help her create the calorie detector. The contents of the handouts are displayed below;

Group	1,600 Calories	2,200 Calories	2,800 Calories
Grain Group Servings	6	9	11
Vegetable Group Servings	3	4	5
Fruit Group Servings	2	3	4
Milk Group Servings	2-3	2-3	2-3
Meat Group Servings (ounces)	5	6	7
Total Fat (grams)	53	73	93
Total Added Sugars (teaspoons)	6	12	18

1. The doctor tells Lily that people 19 years or less need 2,200 calories per day. People above 50 years need 1,600 calories in a day and middle-aged people need at least 2,800 calories per day. Lily is able to create the worksheet having the calorie-wise serving chart. Recreate the same in a blank workbook, exactly like the figure below;

Group	1,600 Calories	2,200 Calories	2,800 Calories
Grain Group Servings	6	9	11
Vegetable Group Servings	3	4	5
Fruit Group Servings	2	3	4
Milk Group Servings	3	3	3
Meat Group Servings (ounces)	5	6	7
Total Fat (grams)	53	73	93
Total Added Sugars (teaspoons)	6	12	18

This should be on the first sheet, rename the sheet to Calorie-wise Servings Chart

2. Insert another sheet, rename the sheet to Calorie Detector. Recreate the table below;

# CALORIE DETECTOR

			Servings				
Name	Age	Calories	Fruit	Vegetable	Milk	Meat	Grain
Joan Miller	36						
Ritchie Miller	12						
Richard Miller	40						
Tim Miller	9						
Martha Miller	75						

Now she needs to modify the calorie chart by using absolute and 3-D Referencing and nested if condition to perform the following tasks;

- When the age of the person is specified, the Calories and the Servings for each group should be displayed automatically in the cells.
- The Calories displayed should be based on the age of the person.
- The Servings for each group should in turn be based on the calories.
- The Servings for each group should be picked from the Calorie-wise Servings Chart, this was done on the first sheet.

After you are done with the referencing and using the nested if function, you must get the output displayed below;

NB: The cells that are filled in with yellow, you will use the IF Function along with referencing to get the answer. **DO NOT TYPE THE VALUES IN.**

# CALORIE DETECTOR

			Servings				
Name	Age	Calories	Fruit	Vegetable	Milk	Meat	Grain
Joan Miller	36	2,800	4	5	3	7	11
Ritchie Miller	12	1,900	3	4	3	6	9
Richard Miller	40	2,800	4	5	3	7	11
Tim Miller	9	1,900	3	4	3	6	9
Martha Miller	75	1,600	2	3	3	5	6

3. Insert another sheet, and name it Serving Chart. Create a line chart based on the final output.