This is a range of cells. More than one cell has been selected. **G6:G11**

A range will be typically used when you are calculating values from a number of cells.
Named cells >> Right Click on the Cell >> Select Define Name >> Enter New Name for Cell

Named ranges >> Right Click on the Cell >> Select Define Name >> Enter New Name for Range
Spreadsheets

Formatting

- Adjusting Column and Rows
- Merging Cells
- Text formatting including alignment and wrapping.
- Borders and Shading
- Currency

Chapter 20: Data Analysis
Number Formatting

Tip: Formatting

You can format a number in numerous ways including using the methods shown on the left.

Tip: Currency

Sometimes a 0 will be displayed as a dash when the numbers have been formatted as a Currency using the method shown on the left.

You need to ensure the formatting of the cell is set to Currency and not Accounting.
Hide and Show Columns/Rows:

To hide/show Rows or Columns to you need to right click on either the column letter or row number. You then need to select hide/show.

If you have hidden the C Column then you would have to select the B & D columns to unhide the C column.

Insert and Delete Columns/Rows:

1) First select either the column letter or row
2) Right click your mouse >> select insert
3) This will insert a row before the selected column or row.
4) If you would like to delete a row or column you simply highlight the row number or column letter >> right click >> Select Delete.
**Merging Cells:**

1. Highlight the cells you want to merge
2. Click on the Merge & Center Icon

**Shading and Patterns:**

**Tip: Merging Cells**

**Tip: Shading Cells**

You may be asked to put a specific pattern into a cell. You can do this by right clicking your mouse and selecting the Fill Option. You can then select the pattern and colour.
Headers & Footers

Click on Insert for header and footer.

Footer
You can switch from header and footer. You can also add file names, paths etc.

Back to Normal View
You can go back to the normal view if you select any cell and then click on Normal.
Creating Graphs

- Highlight the cells that will be required to create the chart.
- Select the correct chart (Bar, Pie, line etc.)
- You add labels to your axis by using the select data option.

A graph is used to visually display data which is easy to read and interpret.
Formulas can be typed into the formula to bar to work out simple calculations.

A formula will begin with a = (equal sign).

Refer to the cell reference (A4) before you write your formula.

You can either type the cell reference or click on the cell.

You can create simple formulas to:

- **ADD (+)**
- **Multiply (*)**
- **Subtract (-)**
- **Divide (/)**

Even if you update the numbers in the cell the formula will automatically work out the new value.
**Spreadsheets**

**Simple Functions**

**Cell Range** for Total, Max & Min (Jan Sales).

**Cell Range** for Total & Average (Monthly Sales).

The **=Sum Function** will calculate the total (Sum) of the numbers in the range.

The **=Max Function** will find the highest number in the range.

The **=Min Function** will find the lowest number in the range.

The **=Average Function** will calculate the average of the numbers within the range.

**Functions** are **predefined formulas** and are already available in **Excel**.
When you use AutoFill to duplicate a formula into the cells below then you must use absolute cell referencing if you want the cells to be referencing to one particular cell.

Absolute cell referencing will lock in a particular cell. To absolute cell reference you must insert a dollar sign before Letter and number of the cell.

All the prices will be multiplied by the % in E3.

In the example to the left if you do not use absolute cell referencing on the 25% then the Price will be multiplied against the content in E4.

The Price is relative referencing. When the formula is dragged down the formula references to the next price.

The Price is relative referencing. When the formula is dragged down the formula references to the next price.
The count function will only Count the cells. Do not get confused with Sum.
**Count IF**

=Countif(Range,Criteria)

This function will count the cells which contains a specific criteria from the range.

Example: We need to count the Prada bags from the range.

Some times you may have to count all cells apart from a certain criteria.

In this example you we want to count all the brands apart from Marc Jacobs

=Countif(Range,“<>Marc Jacobs”)
Some times you may have to use the following to find a specific criteria:

- less than
- more than
- equal to

=COUNTIF(range,”>=2012”)
Count Functions

=Count(Range) - This will count a range of cells which only includes numbers.

=CountA(Range,Criteria) - This will count all the cells which are not empty.

=Countif(Range,Criteria) - This will count a range of cells which includes a specific criteria.

Not =Countif(Range,"<>Criteria") – This will count everything apart from the specific criteria.

When you reference to a criteria you can either write the criteria in speech marks or reference to a cell that contains the criteria.
Use a COUNTIF function in cell C7 to count the number of products made by the Supplier with a Ccode that matches the contents of cell B7. This function must include both absolute and relative referencing and must not use a named range. Do not count any entries in rows 1 to 23.

Replicate this function into cells C8 to C21 to count the number of products in stock made by each Supplier.

In cell C2 use a function to count the number of trips to the destination where the value in the Dcode column matches the contents of cell B2. This function must use the correct named range.

Replicate this function into cells C3 to C8 to calculate the number of trips booked to each of the other destinations.

In cell B11 use a function to count the number of item codes in this invoice.
**ICT IGCSE Practical – Revision Presentation**

**Spreadsheets**

**Sum IF**

=SUMIF(B4:B10,"virgin",F4:F10)

A `SUMIF` will only **sum (add)** up from a **specific criteria (condition)** from the **sum_range**.

- **Range**: The criteria is “virgin”. Look at the table and highlight the range of cells which includes “Virgin”.

- **Criteria**: You can either reference to a cell or write the criteria in quotation marks.

- **Sum Range**: This will sum up only the criteria values from the sum range.
Sum IF with Absolute and Relative Cell Referencing

The Range and the Sum Range have absolute cell referencing. When the formula is replicated the absolute cell referenced cells will stay the same and will not move position.

H5 is relative cell referencing. It will move down when the formula is replicated.

**Task 4: Sumifs (Part 2)**

<table>
<thead>
<tr>
<th>Mobile Phone</th>
<th>Brand</th>
<th>Year of Release</th>
<th>Price</th>
<th>Sales</th>
<th>Total (Price*Sales)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xperia M</td>
<td>Sony</td>
<td>2014</td>
<td>£119.9</td>
<td>23</td>
<td>2,758.85</td>
</tr>
<tr>
<td>Iphone 5</td>
<td>Apple</td>
<td>2013</td>
<td>£229.9</td>
<td>42</td>
<td>9,636.90</td>
</tr>
<tr>
<td>HTC One</td>
<td>HTC</td>
<td>2013</td>
<td>£360.5</td>
<td>12</td>
<td>4,327.08</td>
</tr>
<tr>
<td>Samsung Galaxy S</td>
<td>Samsung</td>
<td>2012</td>
<td>£439.9</td>
<td>12</td>
<td>5,279.40</td>
</tr>
<tr>
<td>Iphone 4</td>
<td>Apple</td>
<td>2013</td>
<td>£539.9</td>
<td>3</td>
<td>1,619.97</td>
</tr>
<tr>
<td>Samsung S5</td>
<td>Samsung</td>
<td>2014</td>
<td>£475.4</td>
<td>23</td>
<td>10,935.12</td>
</tr>
<tr>
<td>Samsung S4 Mini</td>
<td>Samsung</td>
<td>2013</td>
<td>£400.2</td>
<td>5</td>
<td>2,001.25</td>
</tr>
<tr>
<td>Xperia Z</td>
<td>Sony</td>
<td>2012</td>
<td>£250.5</td>
<td>54</td>
<td>13,529.16</td>
</tr>
</tbody>
</table>

**Formula:**

=SUMIF($B$5:$B$12, H5, $E$5:$E$12)
In cell C2 use a function that includes both absolute and relative referencing to calculate the sum of the Minutes column if the SCode column contains GBA. Do not include rows 1 to 10.

Replicate this function into cells C3 to C8 to sum the total Minutes for each SCode.

In cell D2 use a function to add the total number of days (using the Duration column) booked for this destination. This function must use the correct named ranges.

Replicate this function into cells D3 to D8 to calculate the total number of days booked for the other destinations.

In cell C11 use a function to add the total number of days (using the Duration column) for holidays starting in the month of January. This function must include both absolute and relative referencing and must not use a named range.

Replicate this function into cells C12 to C22 to calculate the total number of days booked for the other months in 2010.
If the **units sold** is **more than or equal to the targets sales** than the **target has been met**.

1. **Logical Test**
   Is units sold more than or equal to the target sales.

2. If the statement is **true** then the **“true statement” will be printed in the cell.**

3. If the statement is **false** then the **“false statement” will be printed in the cell.**

<table>
<thead>
<tr>
<th>TV Shows</th>
<th>Season</th>
<th>Units Sold</th>
<th>Target Sales</th>
<th>Price</th>
<th>VAT</th>
<th>Final Price</th>
<th>Total Sum</th>
<th>on target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once Upon A Time</td>
<td>2</td>
<td>23</td>
<td>15</td>
<td>£12.50</td>
<td>£2.19</td>
<td>£14.69</td>
<td>£337.81</td>
<td>=IF(C5&gt;=D5,&quot;on target&quot;,&quot;off target&quot;)</td>
</tr>
</tbody>
</table>

=IF(C5>=D5,"on target","off target")
If student discount has been given ("Yes") then for the true statement you have to calculate 10% of Price. This will be the value for the student discount. If the student discount does not contain “Yes” than the false value (0) will be shown.

1. Logical Test
   Does the Cell in D4 equal “Yes”

2. If the Logical Test is true then the calculation (10% of the price) will be shown.

3. If the statement is false then the false value (0) will be shown.

=IF(D4="Yes",C4*10%,0)
A nested if will contain more than one true statement. In this example the delivery type will be either A, B or Free.

The Nested if will check the first logical Test. If the first test is false then it will check the next logical test. If both tests are false then the false value will be shown.

\[
=IF(C4="a",3.50,IF(C4="b",4.50,0))
\]

1. Logical Test 1
   Does the Cell in C4 equal “A”

2. If the Logical Test 1 is true then 3.50 will be printed.

3. Logical Test 2
   Does the Cell in C4 equal “B”

2. If the Logical Test 2 is true then 4.50 will be printed.

If both logical tests are false the false value (0) will be printed.
Exam Question Example: Nested IF

In cell F27 use a formula to calculate the discount using the *Sub total, Number of units* and the *three* discount rates A, B and C.

Multiply the *Sub total* by:
- Discount A if less than 5 units are sold
- Discount B if between 5 and 19 (inclusive) units are sold
- Discount C if 20 or more units are sold.

**Step 1:** Identify the cells which cells will be used for the formula. Cells are shaded in Yellow for now. (B12, B15, B16, B17 & F26)

**Step 2:** Identify the cell which will be used for the logical Test (B12).

**Step 3:** Identify the Logical Tests and True Conditions.

**Step 4:** Identify the False Condition.
Exam Question Example: Nested IF (Working out the True and False Conditions)

In cell F27 use a formula to calculate the discount using the *Sub total* and the **three** discount rates A, B and C. Multiply the *Sub total* by:

- **Discount A** if less than 5 units are sold
- **Discount B** if between 5 and 19 (inclusive) units are sold
- **Discount C** if 20 or more units are sold.

B12: Logical Test (Number of Units)

- If(B12<5, Discount A B15,)
- If(B12<20, Discount B B16, Discount C B17))

F26: Sub Total

Remember to **close the Brackets**. Always close with a **black bracket**.

Example Formula:

```
=IF(B12<5,B15,IF(B12<20,B16,B17))*F26
```
If Statement Exam Example

In cell D11 use a formula to return **N** if the value in the *Minutes late* column is less than or equal to zero or to return **Y** if the value in the *Minutes late* column is greater than zero.

Nested IF Exam Examples

In cell H4 enter a formula to display the word **Yes** if the hours worked are greater than the contract hours, display the word **No** if the hours worked are the same as the contract hours or display the word **Incomplete** if the hours worked are less than the contract hours.

```
=if(Hours Worked > Contract Hours, “Yes”,
   If(Hours Worked = Contract Hours, “No”, “Incomplete”))
```

In cell E3 enter a formula to display the viewing cost if a local taxi is used. If the distance to the property is:

- less than 5 kilometres, the cost will be 2 dollars
- 5 kilometres or more and less than 15 kilometres, the cost will be 5 dollars
- 15 kilometres or more, the cost will be 10 dollars
In the *Unit Retail* column (Cell F24) use an IF function to calculate the retail price of each unit.

If the **Code** is *D* then multiply the named cell *Discount* by the *Unit Purchase* price.

If the **Code** is *N* then multiply the named cell *Normal* by the *Unit Purchase* price.

If the **Code** is *P* then multiply the named cell *Premium* by the *Unit Purchase* price.

If the **Code** is not *D*, *N* or *P* then return the *Unit Purchase* price.

Replicate this function so that the *Unit Retail* price for each item is shown.

In cell J2 use a formula to calculate the sales commission on this property. The sales commission is $10,000 plus:

- If the property has an *Area (sq ft)* of less than or equal to 500 square feet (sq ft), **5% of the Price**
- If the property has an *Area (sq ft)* greater than 500 square feet (sq ft) and less than 4000 square feet (sq ft), **7.5% of the Price**
- If the property has an *Area (sq ft)* greater than or equal to 4000 square feet (sq ft), **10% of the Price**
Using **VLOOKUP** is similar to looking up a person’s name in a telephone book to get a telephone number. **VLOOKUP** looks at a value in one column, and finds its corresponding value on the same row in another column.

We need to use a lookup function to find the corresponding data from the lookup table for each book title.
### Spreadsheets

#### Vlookup

1. **Lookup_Value**

   - **BOOK NAME (Lookup Value)**
     - Divergent
     - The Fall of Arthur

   - **Author (LOOKUP)**
     - Formula: `=VLOOKUP(A4, Table Array, 2, FALSE)`

2. **Table_Array**

   - **BOOK NAME (Lookup Value)**
     - Catching Fire
     - The Fall of Arthur
     - Harry Potter And The Goblet Of Fire
     - Insurgent
     - The Hunger Games
     - The Heroes of Olympus
     - Harry Potter and the Sorcerer's Stone

   - **Author**
     - Suzanne Collins
     - J. R. R. Tolkien
     - J. K. Rowling
     - Veronica Roth
     - Suzanne Collins
     - Rick Riordan
     - J. K. Rowling

   - **Shop (LOOKUP)**
     - Amazon
     - Powell's Books
     - Powell's Books
     - Powell's Books
     - Amazon
     - Powell's Books
     - Books A Million

#### Tips:

- **Tip:** If the table array is on an external sheet then it will automatically Absolute Cell Reference the table.

- 1) Select the lookup value. The lookup value will appear also in the lookup table (table_array).

- 2) Select the lookup table (table_array). This may be in the same sheet, next tab or another excel file. Select the lookup value and then the output value.

Make sure you absolute cell reference the table_array.
### Spreadsheets

#### Vlookup

3. `col_Index_num`

3) Select the column in the table for the output value. In this example the shop is in the third column of the selected table so therefore you would write 3.

4. `Range_Lookup`

4) You need to select `FALSE` which is an exact match. This means the `Vlookup` will only find an exact match for the output value.

Remember to close the brackets.
Tip: When you are looking at the table array you must start from the cell you are looking up. In this Example:

Lookup Value – Player Name (C5)
Lookup Output – Goals Scored (E5)

The output value will always be right of the lookup value.
When the lookup value does not have an exact match in the table array then you have to use an approximate match. With the grades example if the percentage (%) is 90 or more than the grade will be A*.
HLOOKUP works horizontally. You will be required to select the row rather than a column for a VLOOKUP.

1) Select the lookup value.

2) Select the Table Array and absolute cell reference if required.

3) Select the Row to find the output data. In this case the data is in Row 2.

4) You need to select Approximate or exact match.
Chapter 20: Data Analysis

**LOOKUP**

1. **Lookup Value**

2. **Lookup_Vector**

3. **[Result_Vector]**

Looks up a value either from a one-row or one-column range or from an array.

Provided for **backward Compatibility**

<table>
<thead>
<tr>
<th>Branch</th>
<th>Sales Person Name</th>
<th>Order ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leeds</td>
<td>Lionel Messi</td>
<td>4541</td>
</tr>
<tr>
<td>Manchester</td>
<td>Cristiano Ronaldo</td>
<td>4544</td>
</tr>
<tr>
<td>Leeds</td>
<td>Andres Iniesta</td>
<td>4543</td>
</tr>
<tr>
<td>London</td>
<td>Zlatan Ibrahimovic</td>
<td>4544</td>
</tr>
<tr>
<td>Leeds</td>
<td>Radamel Falcao</td>
<td>4545</td>
</tr>
<tr>
<td>Manchester</td>
<td>Robin van Persie</td>
<td>4546</td>
</tr>
<tr>
<td>Liverpool</td>
<td>Andrea Pirlo</td>
<td>4547</td>
</tr>
<tr>
<td>Liverpool</td>
<td>Yaya Toure</td>
<td>4548</td>
</tr>
<tr>
<td>Manchester</td>
<td>Edinson Cavani</td>
<td>4549</td>
</tr>
<tr>
<td>Liverpool</td>
<td>Sergio Aguero</td>
<td>4550</td>
</tr>
</tbody>
</table>
LOOKUP

Task 2: Using the Bar Code Look up the Item Name and Supplier Code for each Item.

The Lookup Vector and the Result Vector needs to be the same length (number of cells).
In this example the first character of the Barcode needs to be used as a single lookup value in the Table array shown below the table. The match will be an exact Match.

**Extract Functions:**
- **Left:** Returns the specified number of characters from the start of a text string.
- **Right:** Returns the specified number of characters from the end of a text string.
- **Mid:** Returns the character from the middle of a text string, given a starting position and length.

In cell C20 use a formula to look up the type of cycle. Use the first character of the *Item Code* as the single lookup value and the named range *Type* for the array.
In cell D22 use a lookup function to show the Job Description. Use the *Code* column for the lookup value and the *Job codes* table for the array. This function must include both absolute and relative referencing and must not use a named range.

Replicate this function so that the job description is shown for each of the other employees.

In cell G22 use a formula to calculate the pay for this employee. This will look up the rate of pay from the named range *RATE* and multiply it by the number of hours worked. Choose an appropriate format for this cell. This function must not include absolute cell referencing.

Replicate this formula so that the amount of pay is shown for each of the other employees.

In cell D22 use a lookup function to show the job description. Use the *Job code* column for the lookup value and the range *code* for the array.

Replicate this function for each employee.
In the *Destination* column use a lookup function to show the destination name. Use the *Code* column for the lookup value and the file *JXDEST.CSV* for the array. This function must include both absolute and relative referencing and must not use a named range.

Replicate this function so that the destination name is shown for each of the codes.

In the *Name* column use a lookup function to show the staff name. Use the *SCode* column for the lookup value and the external file *N8CODE.CSV* for the array. Make sure that you use both absolute and relative referencing within your function.

Replicate this function so that the names for each of the 7 members of staff are shown.
Use a nested if statement to work out the **Bonus Type** (A,B,C) & **Final Bonus**

**Add Basic Bonus to (Goals* Bonus Type):**

- If goals scored is less than is **less than 16** than goal bonus is type **A**.
- More than or equal to **16** and **less than 30** than goal bonus is type **B**.
- More than or equal to **30** than goal bonus is type **C**.
In cell G4 enter a formula to calculate the pay for this employee using their pay rate and hours worked.

Select appropriate data that you can enter into cell F4 to test this formula. Enter this data in the *Data chosen* column of the test table in your Evidence Document.

Record in the *Expected* column of your test table the value you expect to see in cell G4.

Enter your test data into cell F4 and record the result in the *Actual* column of your test table.

Tip: You should always expect to see the actual outcome before you complete the formula.
12 In cell H4 enter a formula to display the word **Yes** if the hours worked are greater than the contract hours, display the word **No** if the hours worked are the same as the contract hours or display the word **Incomplete** if the hours worked are less than the contract hours.

<table>
<thead>
<tr>
<th>Contract hours</th>
<th>Hours worked</th>
<th>Pay</th>
<th>Overtime?</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>35</td>
<td>25</td>
<td>225</td>
</tr>
</tbody>
</table>

=IF(F4>E4,"Yes",IF(E4=F4,"No","Incomplete"))

Select three items of appropriate data that you can enter into cell F4 to test this formula. Enter this data in the *Data chosen* column of the test table in your Evidence Document.

Record in the *Expected* column of your test table the output you expect to see in cell H4.

Enter each item of test data into cell F4 and record each result in the *Actual* column of your test table for each item of test data.

<table>
<thead>
<tr>
<th>Contract hours</th>
<th>Hours worked</th>
<th>Pay</th>
<th>Overtime?</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>35</td>
<td>315</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell reference</td>
<td>Data chosen</td>
</tr>
<tr>
<td>F4</td>
<td>36</td>
</tr>
<tr>
<td>F4</td>
<td>35</td>
</tr>
<tr>
<td>F4</td>
<td>34</td>
</tr>
</tbody>
</table>
Conditional Formatting

Highlights (Colour scales) cells based on criteria.

1) Highlight the cell range in which you wish to apply **Conditional Formatting**.
2) Click On **Home >> Conditional Formatting**.
3) Click on **Highlight Cell Rules**
4) Select the **Criteria type** (Less Than, Between, Equal To, Contains etc)
5) Enter the **criteria**.

- **Criteria**
- **Colour**
  - A*C – Green
  - D – Amber
  - Less than D - Red
Data Validation prevents invalid data from being entered into a cell.

For example, you could reject invalid dates or numbers greater than a given value. You can also force input to be chosen from a dropdown list of values you specify.

1. Click on Data >> Data Validation

2. Select the list and then the source

3. You may enter an error message.

This example we have to refer to a list to lookup specific values which can be entered into the cell (/,L or A)
This example we have to only allow marks to be entered from 0 to 27 for the Word Processing Exam. If a mark outside of the range is entered than an error message will be shown.

1: Click on Data >> Data Validation

2: Select the Whole Number and then enter the Min and Max numbers in the range.

3. You may enter an error message.
## Rounding

<table>
<thead>
<tr>
<th>Round to 1DP</th>
<th>Round Up</th>
<th>Round Down</th>
<th>INT</th>
</tr>
</thead>
<tbody>
<tr>
<td>£65.69</td>
<td>=ROUND(C3,1)</td>
<td>=ROUNDUP(C3,0)</td>
<td>=ROUNDDOWN(C3,0)</td>
</tr>
<tr>
<td>£75.75</td>
<td>=ROUND(C4,1)</td>
<td>=ROUNDUP(C4,0)</td>
<td>=ROUNDDOWN(C4,0)</td>
</tr>
<tr>
<td>£64.23</td>
<td>=ROUND(C5,1)</td>
<td>=ROUNDUP(C5,0)</td>
<td>=ROUNDDOWN(C5,0)</td>
</tr>
<tr>
<td>£87.87</td>
<td>=ROUND(C6,1)</td>
<td>=ROUNDUP(C6,0)</td>
<td>=ROUNDDOWN(C6,0)</td>
</tr>
<tr>
<td>£34.23</td>
<td>=ROUND(C7,1)</td>
<td>=ROUNDUP(C7,0)</td>
<td>=ROUNDDOWN(C7,0)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>=ROUND(SUM(D3:D7),0)</td>
<td>=ROUNDUP(SUM(E3:E7),0)</td>
<td>=ROUNDDOWN(SUM(F3:F7),0)</td>
</tr>
</tbody>
</table>

### Rounding Functions

- **=ROUND** Rounds a number to a specified number of digits.
- **=ROUNDDOWN** Rounds a number down, towards zero
- **=ROUNDUP** Rounds a number up, away from zero
- **=INT** Rounds the number down to the nearest integer

### Example

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
<th>Round to 1DP</th>
<th>Round Up</th>
<th>Round Down</th>
<th>INT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£65.69</td>
<td>£65.70</td>
<td>£66.00</td>
<td>£65.00</td>
<td>£65.00</td>
</tr>
<tr>
<td></td>
<td>£75.75</td>
<td>£75.80</td>
<td>£76.00</td>
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</tr>
<tr>
<td></td>
<td>£64.23</td>
<td>£64.20</td>
<td>£65.00</td>
<td>£64.00</td>
<td>£64.00</td>
</tr>
<tr>
<td></td>
<td>£87.87</td>
<td>£87.90</td>
<td>£88.00</td>
<td>£87.00</td>
<td>£87.00</td>
</tr>
<tr>
<td></td>
<td>£34.23</td>
<td>£34.20</td>
<td>£35.00</td>
<td>£34.00</td>
<td>£34.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£328.00</strong></td>
<td><strong>£330.00</strong></td>
<td><strong>£325.00</strong></td>
<td><strong>£325.00</strong></td>
<td><strong>£325.00</strong></td>
</tr>
</tbody>
</table>
Tip: Filtering is used to interrogate the data very similar to how a query works in Access. Highlight the cells you want to filter and then select the filter icon from the tool bar.

Tip: You can also do additional filters:

- Equals ---- =
- Greater Than ---- >
- Greater Than Or Equal To ---- >=
- Less Than ---- <
- Between ---- Data And Data

Tip:
You can tick the data you would like to show.
Filtering

Interrogate the data to find all the calls where the **Length** is **Long** and where the **SCode** is **VCR** or **RSP**.
Print this data.
Make sure that your name, Centre number and candidate number are printed in the header of the page.

Interrogate the data to find all the calls where the **Length** is **Long**.
Print this data.
Make sure that your name, Centre number and candidate number are printed in the header of the page.

Interrogate the data, to find all the **Red** items with a **Unit Purchase** price between **0.51** and **0.58** Euros.

Interrogate the data to find all the items where the **Dcode** is **CUB** or **USA** and the **discount** is **Y**.
Tip: Make you can see the full formula – you may have to adjust the column widths before you print.

To show formulas click on the formula tab and click on show formulas.
To Return to normal view you have to click the Show Formulas Icon.

You will definitely be asked to print your formulas.

<table>
<thead>
<tr>
<th>Total thrown</th>
<th>Number of throws</th>
<th>Average</th>
<th>Record breaking</th>
</tr>
</thead>
<tbody>
<tr>
<td>=SUMIF(E8:J8,&quot;&lt;&gt;NT&quot;,E8:J8)</td>
<td>=COUNTIF(E8:J8,&quot;&lt;&gt;NT&quot;)</td>
<td>=ROUND(L8/M8,1)</td>
<td>IF(D8=&quot;Male&quot;,IF(K8&gt;$D$4,&quot;Yes&quot;,&quot;no&quot;),IF(K8&gt;$D$4,&quot;Yes&quot;,&quot;no&quot;))</td>
</tr>
<tr>
<td>=SUMIF(E9:J9,&quot;&lt;&gt;NT&quot;,E9:J9)</td>
<td>=COUNTIF(E9:J9,&quot;&lt;&gt;NT&quot;)</td>
<td>=ROUND(L9/M9,1)</td>
<td>IF(D9=&quot;Male&quot;,IF(K9&gt;$D$3,&quot;yes&quot;,&quot;no&quot;),IF(K9&gt;$D$3,&quot;Yes&quot;,&quot;no&quot;))</td>
</tr>
<tr>
<td>=SUMIF(E10:J10,&quot;&lt;&gt;NT&quot;,E10:J10)</td>
<td>=COUNTIF(E10:J10,&quot;&lt;&gt;NT&quot;)</td>
<td>=ROUND(L10/M10,1)</td>
<td>IF(D10=&quot;Male&quot;,IF(K10&gt;$D$3,&quot;yes&quot;,&quot;no&quot;),IF(K10&gt;$D$3,&quot;Yes&quot;,&quot;no&quot;))</td>
</tr>
<tr>
<td>=SUMIF(E12:J12,&quot;&lt;&gt;NT&quot;,E12:J12)</td>
<td>=COUNTIF(E12:J12,&quot;&lt;&gt;NT&quot;)</td>
<td>=ROUND(L12/M12,1)</td>
<td>IF(D12=&quot;Male&quot;,IF(K12&gt;$D$3,&quot;yes&quot;,&quot;no&quot;),IF(K12&gt;$D$3,&quot;Yes&quot;,&quot;no&quot;))</td>
</tr>
</tbody>
</table>
Tip: Make sure you select the appropriate print settings.

Tip: Make sure all the columns fit to one page if requested.

Tip: If you are asked to show row or column headings then select this option.

1) Click on Custom scaling options >> Sheet