

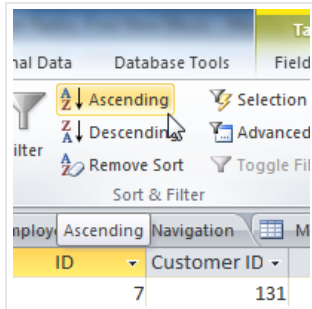
Access 2010

Sorting and Filtering Records



Page 1

Introduction



Access 2010 gives you the ability to work with enormous amounts of data, which means it can be difficult to learn anything about your database just by glancing at it. **Sorting** and **filtering** are two tools that let you customize how you organize and view your data, making it more convenient to work with.

In this lesson, you'll learn how to **sort** and **filter** records.

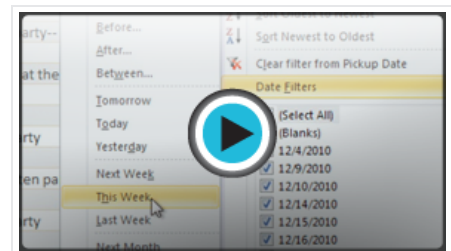
We will be showing you how to sort and filter records with examples from our sample database. If you would like to follow along, [download our example](#) and use it to follow the procedures demonstrated in this lesson.

Page 2

About sorting and filtering

Essentially, sorting and filtering are tools that let you **organize** your data. When you sort data, you are **putting it in order**. Filtering data lets you **hide** unimportant data and **focus** only on the data you're interested in.

Video: Sorting and Filtering in Access 2010



Sorting records

When you **sort** records, you are putting them into a **logical order**, with **similar data grouped together**. As a result, sorted data is often simpler to read and understand than unsorted data. By default, Access sorts records by their **ID numbers**. However, there are many other ways records can be sorted. For example, the information in a database belonging to a bakery could be sorted in several ways:

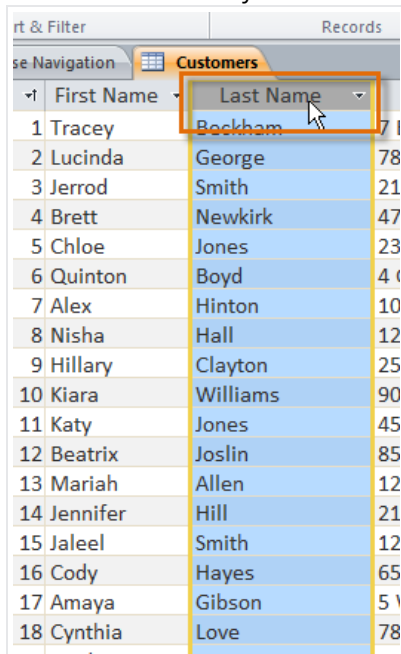
- Orders could be sorted by **order date** or by the **last name** of the customers who placed the orders.
- Customers could be sorted by **name** or by the **city** or **zip code** where customers live.
- Products could be sorted by **name**, **category** (pies, cakes, cupcakes, etc.), or **price**.

You can sort both **text** and **numbers** in two ways: in **ascending** order or **descending** order. "Ascending" means "going up," so an ascending sort will arrange numbers from **smallest to largest** and text from **A to Z**. "Descending" means "going down," or **largest to smallest** for numbers and **Z to A** for text. The default ID number sort that appears in your tables is an ascending sort, which is why the lowest ID numbers appear first.

In our example, we will be performing a sort on a table. However, you can sort records in any Access object. The procedure is largely the same.

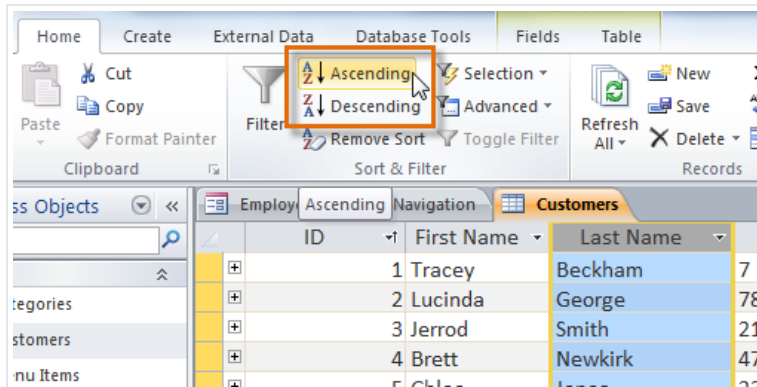
To sort records:

1. Select a field in the cell you wish to sort by. In this example, we will sort by customers' last names.



	First Name	Last Name	
1	Tracey	Beckham	71
2	Lucinda	George	78
3	Jerrold	Smith	21
4	Brett	Newkirk	47
5	Chloe	Jones	23
6	Quinton	Boyd	41
7	Alex	Hinton	10
8	Nisha	Hall	12
9	Hillary	Clayton	25
10	Kiara	Williams	90
11	Katy	Jones	45
12	Beatrix	Joslin	85
13	Mariah	Allen	12
14	Jennifer	Hill	21
15	Jaleel	Smith	12
16	Cody	Hayes	65
17	Amaya	Gibson	51
18	Cynthia	Love	78

2. Click the **Home** tab on the Ribbon, and locate the **Sort & Filter** group.
3. **Sort** the field by selecting the **Ascending** or **Descending** command.
 - Select **Ascending** to sort text A to Z or to sort numbers from smallest to largest. We will select this in our example, since we want the last names to be in A to Z order.
 - Select **Descending** to sort text Z to A or to sort numbers from largest to smallest.

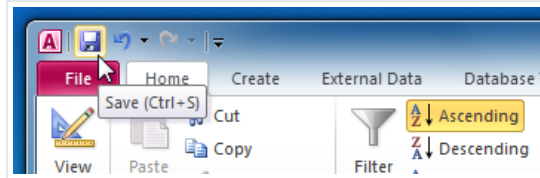


ID	First Name	Last Name	
1	Tracey	Beckham	71
2	Lucinda	George	78
3	Jerrold	Smith	21
4	Brett	Newkirk	47

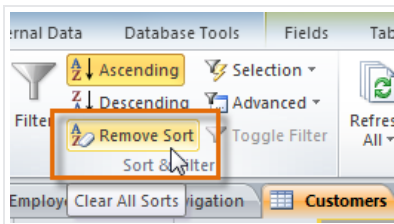
4. The table will now be sorted by the selected field.

Sort & Filter		Records
Database Navigation		Customers
First Name	Last Name	
102 Theodore	Achi	
195 Kris	Ackerman	
78 Michiko	Akiwana	
188 Nathan	Albee	
13 Mariah	Allen	
37 Carol	Allenson	
38 Zoey	Altman	
163 Franz	Angelou	
87 Robert	Armisen	
47 Hakim	Auden	
129 Yann	Augerot	
40 Vig	Aurelio	
1 Tracey	Beckham	
124 Andrew	Bedinger	
136 Xy'nya	Bell	
187 Samantha	Bell	
190 Matt	Benson	
41 Jeffery	Bergman	

5. To save the new sort, click the **Save** command on the Quick Access toolbar.



After you save the sort, the records will stay sorted that way until you perform another sort or remove the current one. To remove a sort, simply click the **Remove Sort** command.



Filtering records

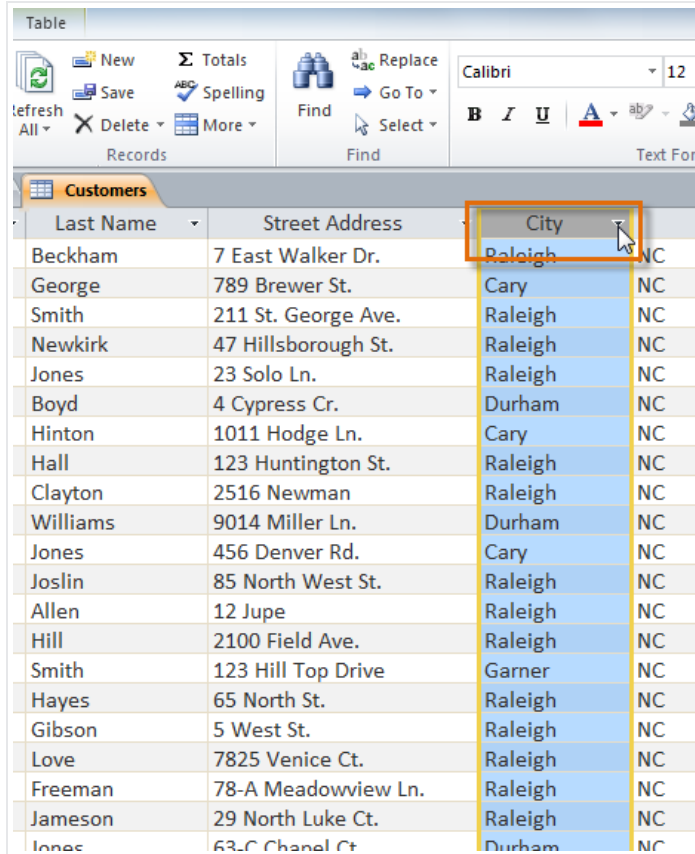
Filters allow you to view **only the data you want to see**. When you create a filter, you set **criteria** for the data you want to display. The filter then **searches** all of the records in the table, **finds** the ones that meet your search criteria, and **temporarily hides** the ones that don't.

Filters are useful because they allow you to **focus in** on specific records without being distracted by the data you're uninterested in. For instance, if you had a database that included customer and order information, you could create a filter to display only customers living within a certain city, or only orders that contain a certain product. Viewing this data with a filter would be far more convenient than searching for it in a large table.

In our examples and explanations, we will be applying filters to tables. However, you can apply filters to any Access object. The procedure is largely the same.

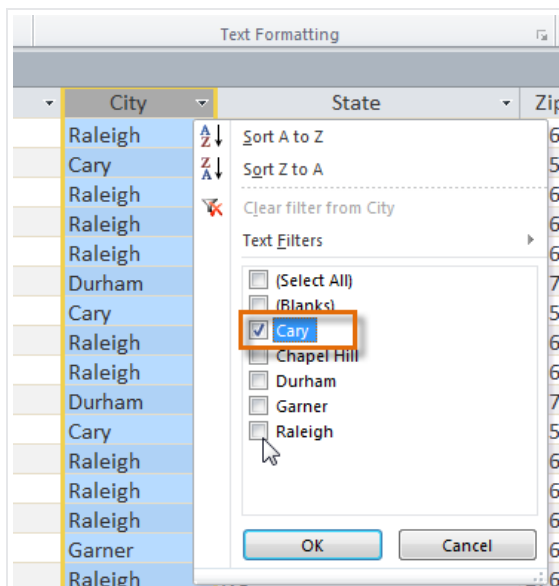
To create a simple filter:

1. Click the **drop-down arrow** next to the field you would like to filter by. We will filter by city, as we want to see a list of customers who live in a certain city.

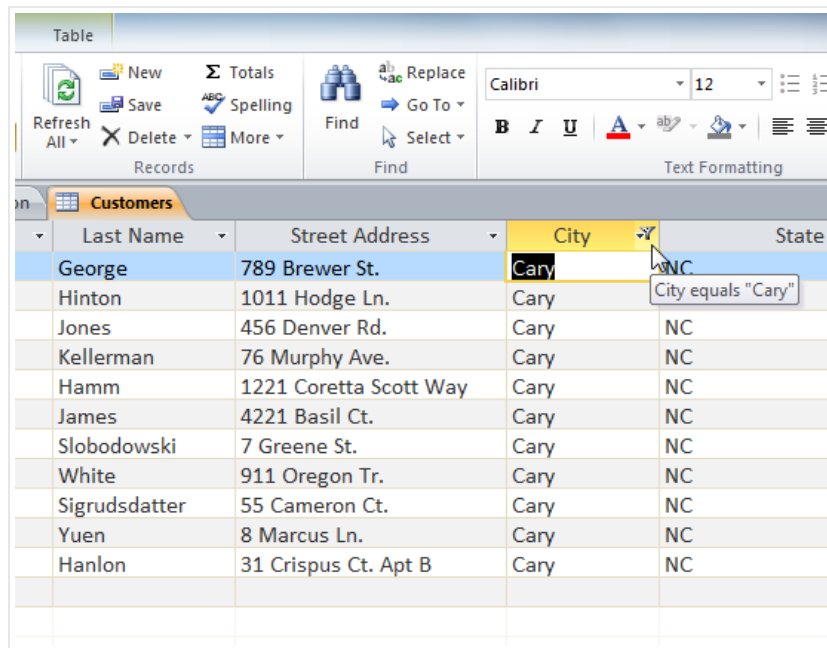


Last Name	Street Address	City	State
Beckham	7 East Walker Dr.	Raleigh	NC
George	789 Brewer St.	Cary	NC
Smith	211 St. George Ave.	Raleigh	NC
Newkirk	47 Hillsborough St.	Raleigh	NC
Jones	23 Solo Ln.	Raleigh	NC
Boyd	4 Cypress Cr.	Durham	NC
Hinton	1011 Hodge Ln.	Cary	NC
Hall	123 Huntington St.	Raleigh	NC
Clayton	2516 Newman	Raleigh	NC
Williams	9014 Miller Ln.	Durham	NC
Jones	456 Denver Rd.	Cary	NC
Joslin	85 North West St.	Raleigh	NC
Allen	12 Jupe	Raleigh	NC
Hill	2100 Field Ave.	Raleigh	NC
Smith	123 Hill Top Drive	Garner	NC
Hayes	65 North St.	Raleigh	NC
Gibson	5 West St.	Raleigh	NC
Love	7825 Venice Ct.	Raleigh	NC
Freeman	78-A Meadowview Ln.	Raleigh	NC
Jameson	29 North Luke Ct.	Raleigh	NC
Jones	63-C Chapel Ct.	Durham	NC

2. A drop-down menu with a checklist will appear. Only checked items will be included in the filtered results. Use the following options to determine which items will be included in your filter:
 - **Select** and **deselect** items one at a time by clicking their check boxes. Here, we will deselect all of the options except for **Cary**.
 - Click **Select All** to include every item in the filter. Clicking **Select All** a second time will deselect all items.
 - Click **Blank** to set the filter to find only the records with no data in the selected field.

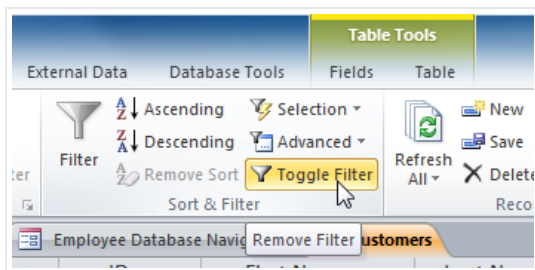


3. Click **OK**. The filter will be applied. Our customers table now displays only customers who live in Cary.



Last Name	Street Address	City	State
George	789 Brewer St.	Cary	NC
Hinton	1011 Hodge Ln.	Cary	NC
Jones	456 Denver Rd.	Cary	NC
Kellerman	76 Murphy Ave.	Cary	NC
Hamm	1221 Coretta Scott Way	Cary	NC
James	4221 Basil Ct.	Cary	NC
Slobodowski	7 Greene St.	Cary	NC
White	911 Oregon Tr.	Cary	NC
Sigrudsdatter	55 Cameron Ct.	Cary	NC
Yuen	8 Marcus Ln.	Cary	NC
Hanlon	31 Crispus Ct. Apt B	Cary	NC

Toggling your filter allows you to turn it on and off. To view records without the filter, simply click the **Toggle Filter** command. To restore the filter, simply click it again.



Creating a filter from a selection

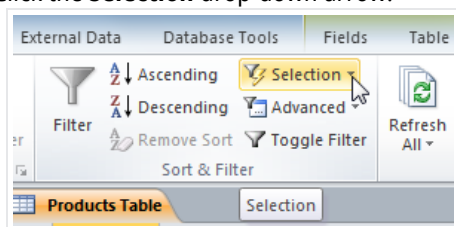
Filtering by selection allows you to **select specific data** from your table and find data that is **similar** or **dissimilar** to it. For instance, if you were working with a bakery's database and wanted to search for all products whose names contained the word "chocolate", you could select that word in one product name and create a filter with that selection. Creating a filter with a selection can be more convenient than setting up a simple filter if the field you're working with contains many items.

To create a filter from a selection:

1. **Select** the cell or data you would like to create a filter with. We want to see a list of all of our products that contain the word "chocolate" in their names, so we'll select the word "chocolate" in the **Product Name** field.

ID	Product Name	Sort
8	Fudge Chocolate	So r
9	Fudge Marble	The
10	French Vanilla	Oo
11	Strawberry Swirl	A di
12	Cookies n' Cream	Like
13	Lemon	A si
14	German Chocolate	"Ch
15	Red Velvet	You
16	Carrot Cake	Ora
17	Coconut	Eve
18	Black Walnut	Nut
19	Black Forest	This
20	Italian Rum	Try
21	Cheesecake	Moi

2. Select the **Home** tab on the Ribbon, and locate the **Sort & Filter** group.
3. Click the **Selection** drop-down arrow.



4. Select the type of filter you would like to set up:
 - **Contains** includes only records with cells that contain the selected data. We'll select this, since we want to see records that contain the word "chocolate" anywhere in the title.
 - **Does Not Contain** includes all records **except** those with cells that contain the selected data.
 - **Ends With** includes only records whose data for the selected field **ends** with the search term.
 - **Does Not End With** includes all records **except** those whose data for the selected field ends with the search term.

ID	Product Name	Sort
8	Fudge Chocolate	So r
14	German Chocolate	"Ch

5. The filter will be applied. Our table now displays only products with the word "chocolate" in their names.

ID	Product Name	
8	Fudge Chocolate	So rich and heavy with chocolate,
14	German Chocolate	Product Name contains "Chocolate"
40	Chocolate Amaretto	Chocolate and almonds-- delizioso
42	White Chocolate Raspberry	Pink and white just may be our fa
47	Chocolate Chip	Overloaded with chocolate chips,
66	White Chocolate Macademia Nut	Ooo-la-la and addictive. Take our
68	Chocolate Banana Walnut	The taste of banana bread and ch
69	White Chocolate Pumpkin Pecan	White chocolate pumpkin? Exactl
72	Cannoli, Chocolate Chip	Our Italian favorite, now with ch
77	Raspberry Chocolate Tartlette	A teeny-tiny Raspberry Chocolate
78	Chocolate Mousse Cup	A cup of our delicate chocolate m
82	Chocolate Strawberries	Perfectly ripe strawberries dippe
87	Chocolate Croissant	Pain au chocolat. A croissant wrap
99	Peanut Butter Chocolate	Like a peanut butter cup with a cr
103	Chocolate Chess	Chocolate lovers have met their r
*	(New)	

Creating a filter from a search term

You can also create a filter by entering a **search term** and specifying the way Access should match data to that term. Creating a filter from a search term is similar to creating a filter from a selection.

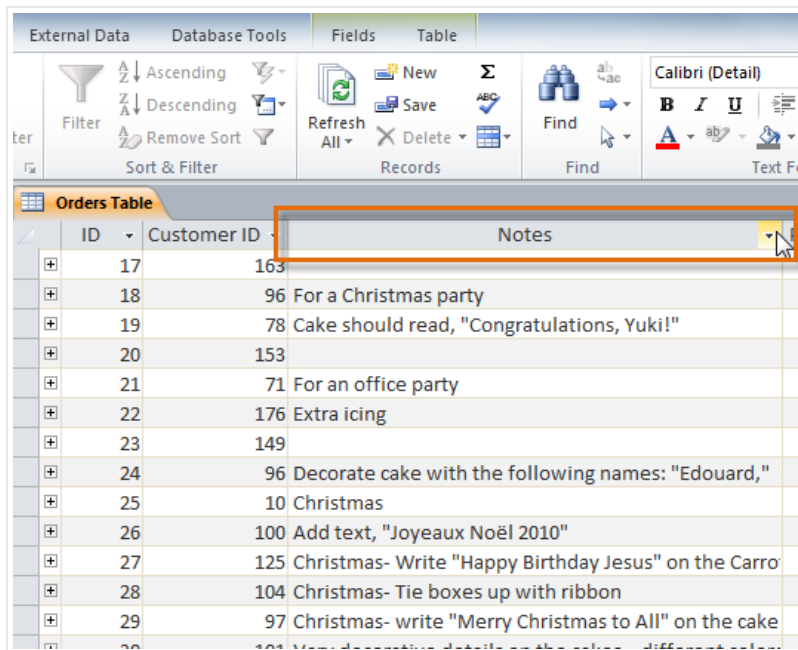
Filtering text by a search term

When filtering text by entering a search term, you can use some of the same options you use when filtering by a selection, like **Contains**, **Does Not Contain**, **Ends With**, and **Does Not End With**. You can also choose from the following options:

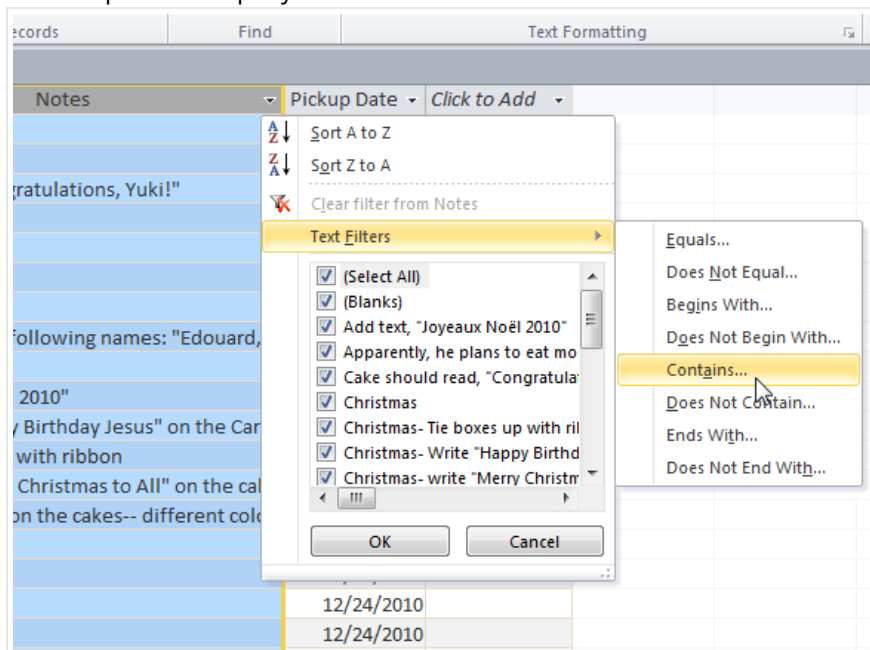
- **Equals**, which includes only records with data that is identical to the selected data
- **Does Not Equal**, which includes all records except the data that is identical to the selection
- **Begins With**, which includes only records whose data for the selected field **begins** with the search term
- **Does Not Begin With**, which includes all records **except** those whose data for the selected field begins with the search term

To filter text by a search term:

1. Click the **drop-down arrow** next to the field you would like to filter by. We want to filter the records in our orders table to display only those that contain notes with certain information, so we'll click the arrow in the **Notes** field.

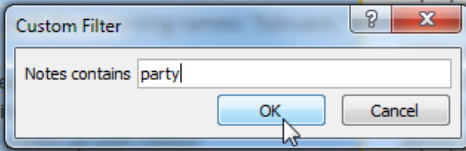


2. In the drop-down menu, hover your mouse over the words **Text Filters**. From the list that appears, select the way you would like the filter to match the term you enter. In this example, we want to view only records whose notes indicate the order was placed for a party. We'll select **Contains** so we can search for records that contain the word "party".



3. The **Custom Filter** dialog box will appear. Type in the word you would like to use in your filter.

ID	Notes	Pickup Date
163		12/18/2010
96	For a Christmas party	12/18/2010
78	Cake should read, "Congratulations, Yuki!"	12/18/2010
153		12/18/2010
71	For an office party	12/19/2010
176	Extra icing	1/18/2011
149		12/20/2010
96	Decorate cake	12/20/2010
10	Christmas	12/20/2010
100	Add text, "Joye	12/20/2010
125	Christmas- Wri	12/20/2010
104	Christmas- Tie	12/20/2010
97	Christmas- write "Merry Christmas to All" on the cake	12/23/2010
101	Vary decorative details on the cakes-- different colors	12/24/2010
44		12/24/2010



4. Click **OK**. The filter will be applied.

External Data Database Tools Fields Table				
Filter	Ascending Descending	Selection Advanced Toggle Filter	Refresh All New Save Delete	Totals Spelling More
Sort & Filter Records Find				
Orders Table				
ID	Customer ID	Notes	Pickup Date	Click
6	136	For a birthday party-- cake should read, "Happy Birth	12/9/2010	Notes contains "party"
11	92	For a holiday party		
13	139	For a kindergarten party. Write, "Happy 6th Birthday, I	12/16/2011	
15	129	For a holiday party	12/17/2010	
18	96	For a Christmas party	12/18/2010	
21	71	For an office party	12/19/2010	
41	111	For a NYE party	12/30/2010	
45	117	For a NYE party	12/31/2010	
*	(New)			

Filtering numbers with a search term

The process for filtering numbers with a search term is similar to the process for filtering text. However, different filtering options are available to you when working with numbers. In addition to the **Equals** and **Does not Equal**, you can choose:

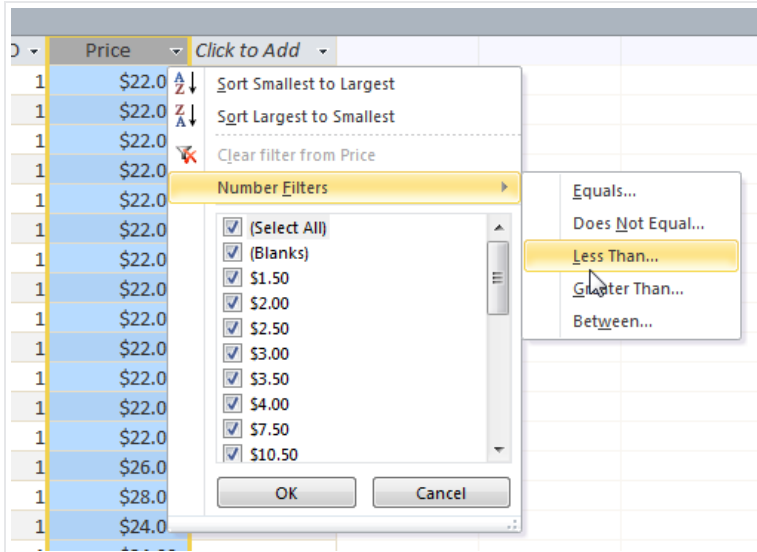
- **Greater Than** to include only records with numbers in that field **greater than or equal to** the number you enter
- **Less Than** to include only records with numbers in that field **less than or equal to** the number you enter
- **Between** to include records with numbers that fall within a certain range

To filter numbers by a search term:

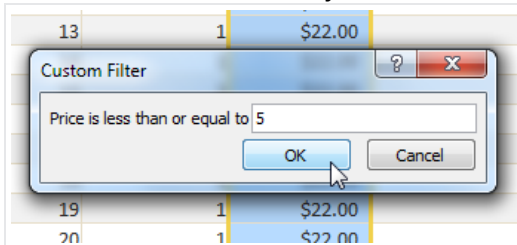
1. Click the **drop-down arrow** next to the field you would like to filter by. We want to filter the records in our menu items table by price, so we'll click the arrow in the **Price** field.

Menu Items				
ID	Product ID	Sales Unit ID	Price	Click to Add
6	8	1	\$22.00	
7	9	1	\$22.00	
8	10	1	\$22.00	
9	11	1	\$22.00	
10	12	1	\$22.00	
11	13	1	\$22.00	
12	14	1	\$22.00	
13	15	1	\$22.00	
14	16	1	\$22.00	
15	17	1	\$22.00	
16	18	1	\$22.00	
17	19	1	\$22.00	
18	20	1	\$22.00	
19	21	1	\$26.00	
20	22	1	\$28.00	
21	23	1	\$24.00	
22	24	1	\$24.00	

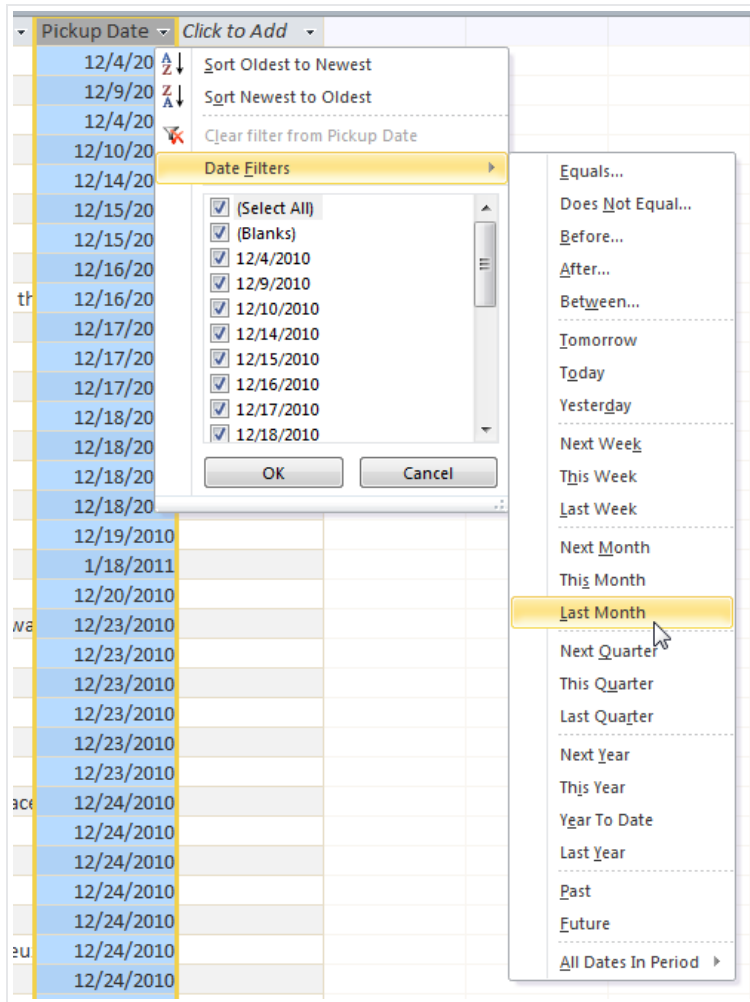
2. In the drop-down menu, hover your mouse over the words **Number Filters**. From the list that appears, select the way you would like the filter to match your search term. In this example, we want to create a filter that will show us inexpensive items only. We want to see items that are **under** a certain price, so we'll select **Less Than**.



3. The **Custom Filter** dialog box will appear. Type in the number or numbers you would like to use in your filter. We'll type "5" so the filter will show us only menu items that cost \$5 or less.



4. Click **OK**. The filter will be applied.



Challenge!

1. If you haven't already, download our [sample database](#) and **open** it.
2. Open the query called **Cakes and Pies Sold**.
3. Apply a **filter** to the **Product Types** field that shows only **Cakes**.
4. In the **Sum of Quantity** field, apply a filter that only shows numbers **greater than** five.
5. Apply an **ascending** sort to the **Sum of Quantity** field.
6. **Save** the database.