

**Objectives**

- Use AutoFilter
- Apply interactive filters
- Create custom filters
- Sort tasks and resources

In MS Project, filtering and sorting is used to display specific information within a project schedule. MS Project includes many predefined filters to display information (many are used as the basis of the reports you have been generating), but custom filters can also be created. Sorting can also be performed on one or more levels to organize project information. Using filters and sorting can help create custom tables and reports, which we will cover in the next lesson.

**Filtering Tasks and Resources**


Filters can be used to focus on specific tasks or resources in a project. A filter displays only those tasks or resources that meet the filter criteria. All other tasks or resources are then hidden from display. Applying a filter does not change the data of your project; only the display is affected. MS project has 30 predefined task filters and 21 predefined resource filters.

For this lesson, begin by

1. Open your file, **MyLab8\_XXX.mpp**, from the previous lab. Since we will not be changing any crucial data, **do not rename this file**. We will be using this file for this lesson and the next (lesson 10).
2. Under **File - Properties**, check the **author's name** and the **manager's name** to reflect your name.
3. **Check the name** of the main summary task (task #1) to ensure it reflects **your name**.
4. Finally, before continuing, under **Project** menu, select **Project Information**.
5. **Change the current date to October 29, 2007**, (Project Information dialog box under Project Menu). **(Important: You must do this every time you open this file!)**

**Applying AutoFilters**

AutoFilter provides a quick way to find information in a field. When AutoFilter is turned on, arrows appear on each column heading. These arrows can be used to filter the data in a column. There are two common filters: All and Custom. The All filter is used to remove any filter criteria, while the Custom filter is used to apply more than one criterion or to apply operators to the data.

1. Make sure you are in Gantt Chart View, with the Table Entry as the default table.
2. From the **View** menu, click on **More Views**, and then select **Task Sheet**. Click **Apply**.
3. On the **View** menu, point to **Table** and then click **Cost**.
4. On the **Formatting** toolbar, click the **AutoFilter** Button.  Down arrows appear on each column.

	Task Name	Fixed Co <sup>st</sup>	Fixed Cost Accr <sup>ual</sup>	Total Co <sup>st</sup>	Baselin <sup>e</sup>	Varianc <sup>e</sup>
1	☐ Student's Name's New System	\$0.00	Prorated	\$61,163.85	\$59,763.85	\$1,400.00
2	☐ Create Proposal	\$0.00	Prorated	\$13,044.62	\$14,044.62	(\$1,000.00)
3	Inventory Current Equipment	\$0.00	Prorated	\$1,440.00	\$1,440.00	\$0.00
4	Access Current Department Needs	\$0.00	Prorated	\$1,658.46	\$1,658.46	\$0.00
5	Design and Diagram New System	\$0.00	Prorated	\$2,746.15	\$3,346.15	(\$600.00)
6	Create Proposal for Accounting	\$0.00	Prorated	\$4,800.00	\$4,800.00	\$0.00

Figure 1

- Click the **Fixed Cost down arrow** and then click **>\$0.00**. Task 14, Install Wiring, is displayed as the only task with a fixed cost (not counting summary tasks).
- Click the **Fixed Cost down arrow** and then click **All**. What happened?
- On the **View** menu, point to **Table** and then click **Tracking**. Notice the AutoFilter remains on even when changing tables.
- Click the **%Complete down arrow**. Click the **within 26% and 50%**. The subtasks that are between 26% and 50% are displayed.
- Print this table with all columns showing and the filter on.** Be sure to add the correct header information to this printout. **Change the orientation** to Landscape and fit it on one page. This will be **printout 1**.
- After printing, access the Formatting toolbar and click the AutoFilter button again. What happened to your display?

### Specifying Filter Criteria

Filters can be specific or interactive. Interactive filters display a question dialog box and use the information provided to complete the filter.

- On the **Project** menu, point to **Filtered For**, and then click **Date Range**. The following window should open:

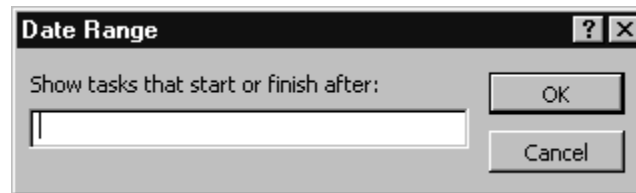


Figure 2

- Type **10/5/07** and click OK.
- In the **second** Date Range dialog box, type **10/26/07**. Click **OK**.
- The tasks that **start** or **finish** between October 5, 2007 and October 26, 2007 are displayed.
- Print this table** with this filter on and show all columns and information. Be sure to add the correct header information to this printout. This will be **printout 2**.
- On the **Formatting** toolbar, click the **Filter down arrow** (next to the Filter button) and then click **All Tasks** to return the display to showing all tasks. (Figure 3)

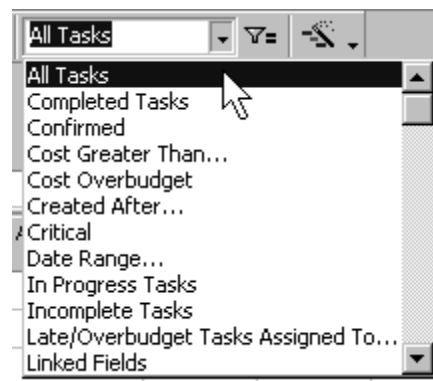

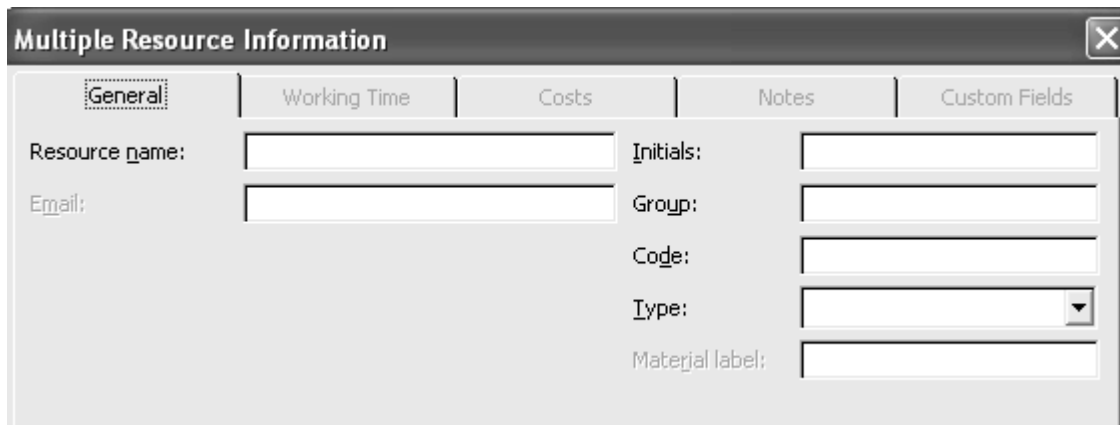


Figure 3

### Filtering Tasks for a Specific Resource

1. On the **View** menu, click on **Resource Sheet**.
2. Under the column Group, enter **Management** for the resources: Project Manager, System Manager, and Financial Officer.
3. Under the column Group, enter **Administration** for the resources: Systems Administrator and Systems Analyst.
4. Under the column Group, enter **Contractor** for the resources: Wiring Contractor.
5. From the Formatting toolbar, click the **Filter down arrow** and then click **Group**.
6. Type **Management** and click **OK**.
7. The resources associated with the management group are displayed.
8. You can also make global changes using filtering. For example, what if we want to change the group name for selected resources?
9. Click the **Resource Name column heading** to highlight the entire column.
10. On the **Standard** toolbar, click the **Resource Information** Button. 
11. The **Multiple Resource Information** dialog box appears. The General tab is selected. There should not be any information listed in this dialog box.



General	Working Time	Costs	Notes	Custom Fields
Resource name:	<input type="text"/>	Initials:	<input type="text"/>	
Email:	<input type="text"/>	Group:	<input type="text"/>	
		Code:	<input type="text"/>	
		Type:	<input type="text"/>	
		Material label:	<input type="text"/>	

Figure 4

12. In the **Group** box, type **Executive**. Click **OK**. What happened? Did the group name change to Executive for these three resources (project manager, financial officer, and systems manager)?
13. On the Formatting toolbar, click the Filter down arrow and then click **All Resources**.
14. **Print this table without the filter on (all resources)**. Be sure to add the correct header information to this printout. Change the orientation to Landscape, adjust the column widths and fit it on one page. This will be **printout 3**.
15. Save the file.

### Creating a Custom Filter

A custom filter can be created from scratch or you can create one from an existing filter. The Filter Definition dialog box is used to create a custom filter. A filter can have a single criterion or multiple criteria. (Note: while you can edit current predetermined filters, it is best to create custom filters so that the predetermined filters, which are used by many reports, stay consistent).

1. **Change** to the **Gantt chart** view, with the **Entry Table**.
2. On the **Project** menu, point to **Filtered For** and select **More Filters**.
3. Click **New** in the top right corner. The **Filter Definition** dialog box appears. (Figure 5).

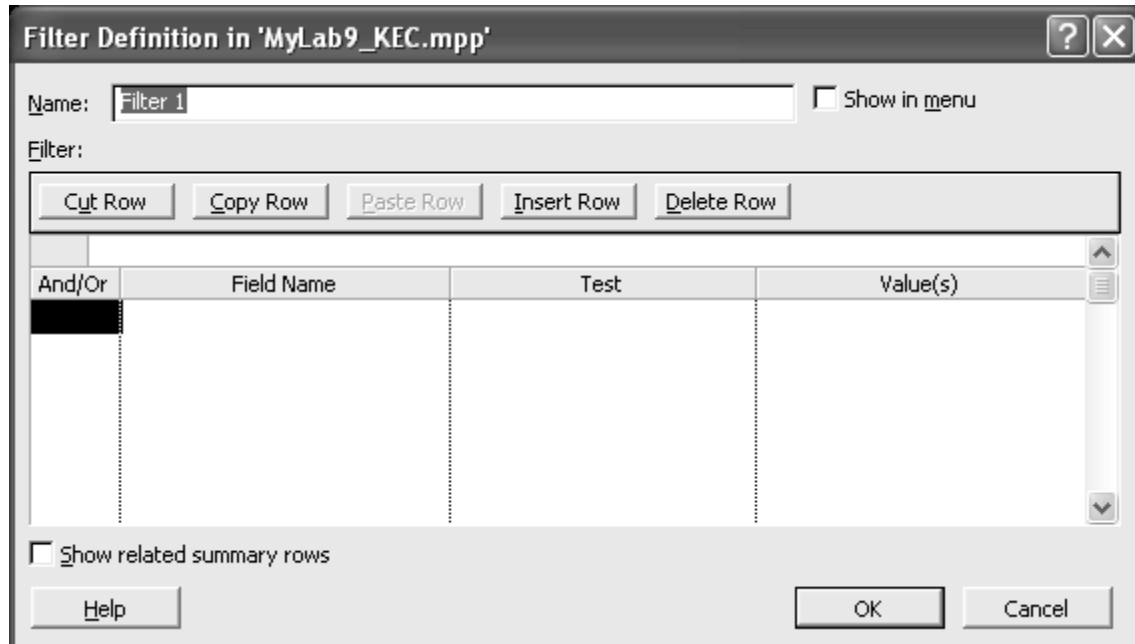


Figure 5

4. In the **Name** box, be sure that the text is replaced with **Start on or after 10/29/07**. (October 29, 2007).
5. Click in the **Field Name** column in the **first row** and then click the down arrow.
6. Scroll down the list and then select the first **Start**.
7. Click in the **Test** column in the first row and then click the down arrow.
8. Scroll in the list and then select **Is greater than or equal to**.
9. Click in the **Value(s)** column in the first row and then click in the Entry bar.
10. **Type** in **10/29/2007** and press **Enter**.
11. Your screen should look like **Figure 6**.

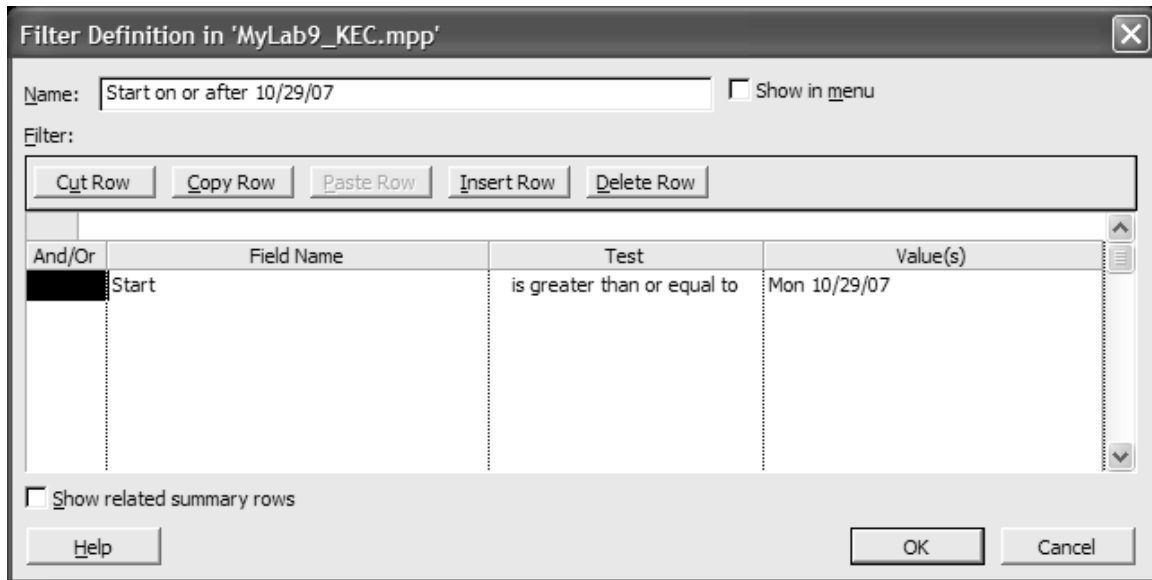


Figure 6

12. **Click OK.** The new filter name is now displayed in the More Views dialog box. (Figure 7).

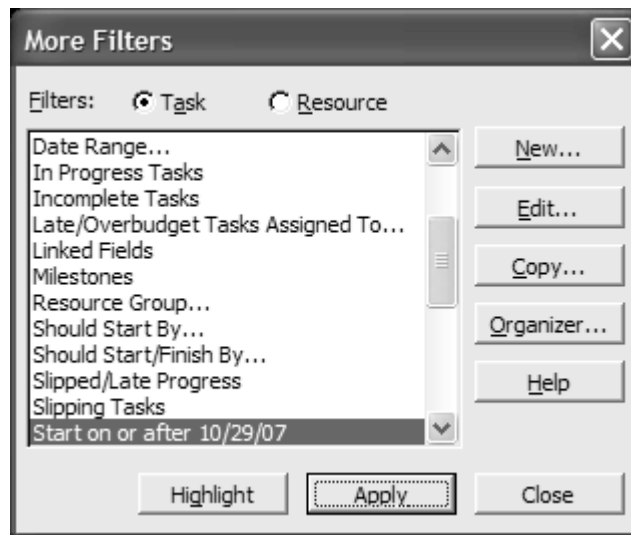
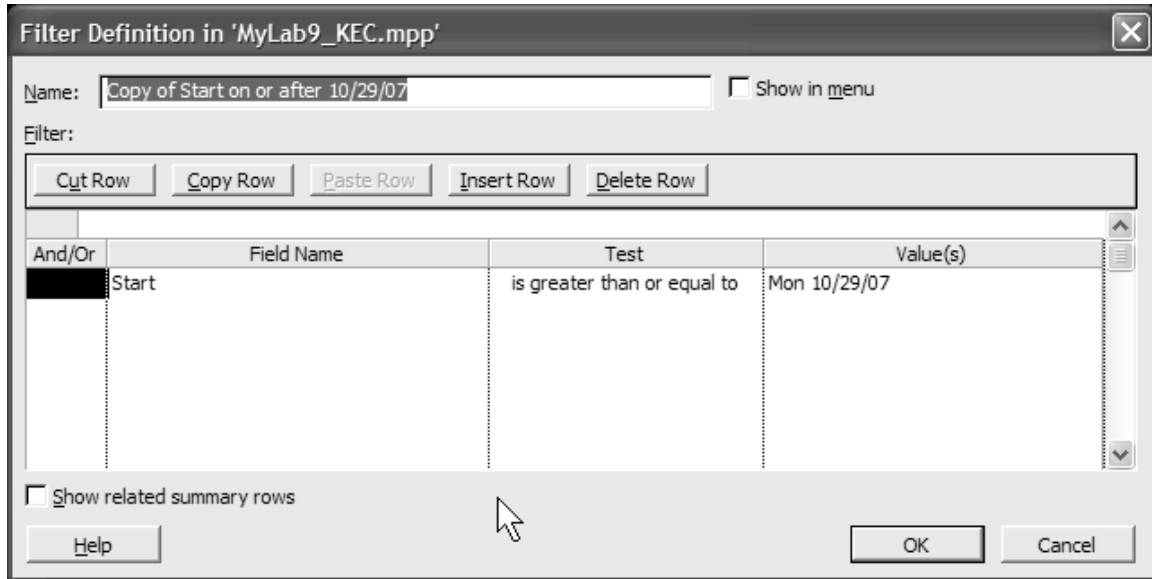


Figure 7

13. Be sure that the **Start on or after 10/29/2007** filter is selected and then click **Apply**.
14. The tasks that start on or after 10/29/2007 are now displayed.
15. On the Standard toolbar, click the **Go To Selected Task Button**. The tasks that start on or after 10/29/2006 are now displayed in the Gantt chart.
16. **Print this table with the Gantt chart (and with the applied filter on).** Make sure the columns of the table up to and including Finish are displayed and columns are wide enough to see all information. Add the correct header information to this printout. This will be **printout 4**.
17. Return the filter to **All Tasks**. Save the file.

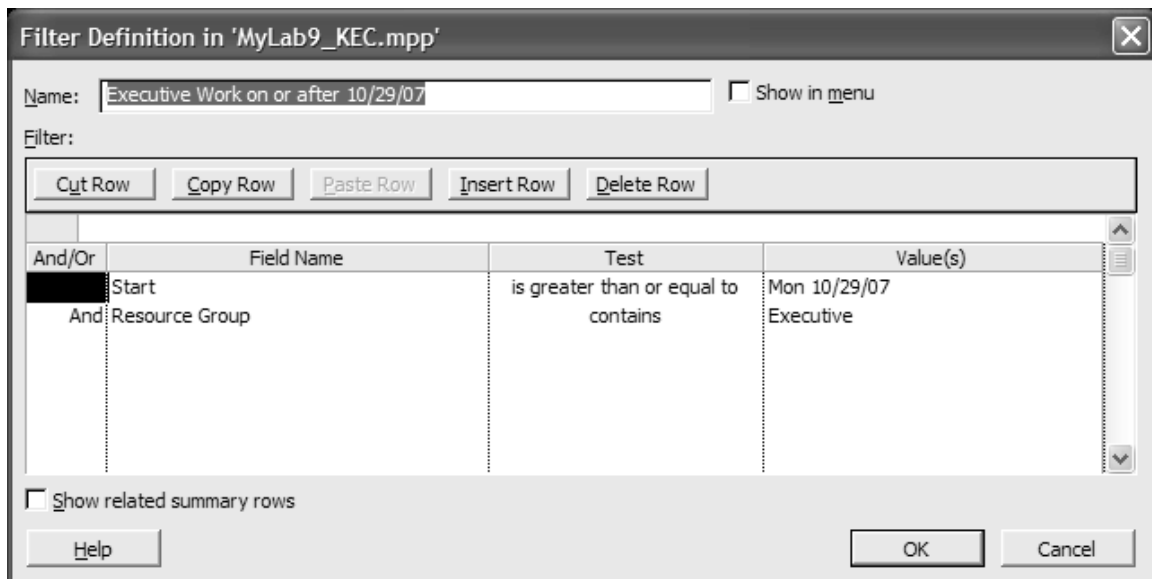
### Combining Filter Criteria

1. On the **Project** menu, point to **Filtered For** and then click **More Filters**.
2. Select the **Start on or after 10/29/2007** filter and select **Copy**.
3. A copy of Start on or after 10/29/2007 is now displayed in the Filter Definition box.



**Figure 8**

4. In the **name** box, type **Executive Work on or after 10/29/2007**.
5. Click in the **And/Or** column in the **second** row, click the down arrow and click **AND**. This will indicate that two criteria must be met.
6. Click in the **Field name** column for the second row, click the down arrow and select **Resource Group**.
7. Click in the **Test** column in the second row and select **Contains**.
8. Click in the **Values** column in the second row and type **Executive** in the Entry bar and press Enter.



**Figure 9**

- Click **OK** if the information is correct.
- Test the filter** by applying **Executive Work On or after 10/31** from the filter list. What tasks were selected? Why? (**You will need this to answer a question at the end of this lab**).
- (Note: if you did not see any tasks, then you missed instructions prior in this lab).
- Return the filter to All Tasks and save the file.**

### Sorting Tasks and Resources

Tasks and resources are displayed in ascending order by ID number by default. Sorting creates an alternate way of displaying task or resources based upon a specified column or field or multiple fields.

- Change to the **Task Sheet view**. (Hint: View, More Views, Task Sheet).
- Make sure the **Table: Tracking** is selected.
- From the **Project** menu, point to **Sort**, and then click **Sort By** to view the following dialog box.

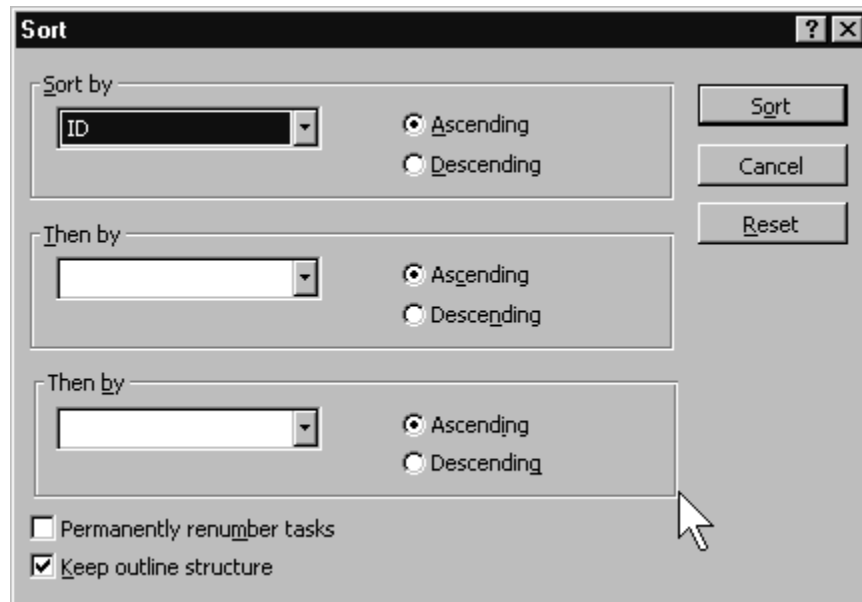


Figure 10

- Click the Sort By down arrow and then click **Actual Duration**.
- Click the **descending** option.
- Note: do **not** check to renumber tasks! This will adversely affect any dependencies in your project.
- Click **Sort**.
- The tasks are now sorted in descending order by duration. You will have to look closely as to what changed. **Answer one of the questions at the end of this lab now** or you will forget.
- From the Project menu, again point to **Sort** and then click **Sort By**.
- In the Sort By area, make sure that the **% Complete** key is selected and **Descending**.
- Click the first **Then By** down arrow and then click **Actual Cost**.
- Click the **descending** option and the click **Sort**.
- How did the table change? Note: in small projects such as this, the changes are slight; however, in large projects sorting by multiple fields makes profound display changes. May want to **answer one of your questions at the end of this lesson now**.
- On the Project menu, point to **Sort** and then click **By ID**, change it to **Ascending** and click **Sort**.
- Save** the file.

It is important that you understand filters and sorting for your next lesson. Reports, views and tables all use filtering and sorting methods. To create custom views, tables and reports, you need to understand how to incorporate different filtering and sorting criteria.

On the Project menu, click **Project Information**. In the Project Information dialog box, click **Statistics**. The following screen should appear.

Project Statistics for 'MyLab9\_KEC.mpp'

	Start	Finish
Current	Mon 10/1/07	Mon 11/19/07
Baseline	Mon 10/1/07	Mon 11/19/07
Actual	Mon 10/1/07	NA
Variance	0d	0d

	Duration	Work	Cost
Current	38.5d	546h	\$61,163.85
Baseline	38.5d	566h	\$59,763.85
Actual	7.92d	162h	\$7,816.92
Remaining	30.58d	384h	\$53,346.92

Percent complete:

Duration: 21%      Work: 30%

Close



## Review Questions

Name \_\_\_\_\_

Answer the following questions:

- 1) What is a filter?
  
  
  
  
  
  
  
  
  
  
- 2) How can you tell if the filter is **interactive**?
  
  
  
  
  
  
  
  
  
  
- 3) What tasks were displayed when you applied the filter, Executive Work On or After 10/29/2007? Why were these tasks displayed?
  
  
  
  
  
  
  
  
  
  
- 4) When you sorted by actual duration, list the order of the tasks under the summary task of Creating Proposal?
  
  
  
  
  
  
  
  
  
  
- 5) When you sorted by %complete and then by actual cost, list the order of the tasks under the summary task of Creating Proposal. Explain why the order was different.

**Attach your four printouts, in print order, to the back of this sheet and submit by the lesson due date.**