

Knowledge Assessment Lesson 5

Fill in the Blank

Complete the following sentences by writing the correct word or words in the blanks provided.

1. A numeric ranking of a task's importance and appropriateness for leveling is called Task priority.
2. A better approach to scheduling tasks is to use a deadline date rather than a(n) inflexible constraint.
3. When you link the tasks in a project schedule, you establish a(n) connection between the tasks.
4. Resource leveling is the process of delaying a resource's work on a task to resolve an overallocation.
5. Microsoft Project honors constraint dates over task relationships, even if this causes slack.
6. Tasks with a priority of 0 are leveled first.
7. When you enter a deadline date, Microsoft Project alerts you if the task's finish date moves beyond the deadline.
8. A(n) deadline is a value you enter for a task that indicates the latest date by which you want the task to be completed.
9. The default task priority value for all tasks is 500.
10. Tasks with a priority of 1000 are never delayed by leveling.

Multiple Choice

Select the best response for the following statements.

1. Microsoft Project uses _____ to determine which tasks can be delayed in order to resolve periods of resource overallocation.
 1. load balancing
 2. random selection
 3. task priorities
 4. task deadlines
2. Which of the following is the numeric ranking range for task priority?
 1. 1 to 100
 2. 0 to 100
 3. 1 to 500
 4. 0 to 1000
3. Entering a deadline date has no effect on the scheduling of a summary or subtask, except when the task involves which of the following?
 1. slack
 2. the critical path
 3. relationships
 4. a priority equal to 0
4. Which of the following is *not* a semi-flexible constraint?
 1. Start No Earlier Than

2. Must Start On
 3. Finish No Earlier Than
 4. Start No Later Than
5. Depending on options you choose, resource leveling might _____.
 1. delay the start date of a specific resource's assignment
 2. delay the start date of an entire task
 3. split up the work on a task
 4. all of the above
6. Which of the following must be done to remove a deadline from a task?
 1. Delete the deadline indicator from the bar chart portion of the Gantt chart.
 2. Slide the deadline indicator off of the active portion of the Gantt chart.
 3. Clear the Deadline field on the Advanced tab of the Task Information dialog box.
 4. Change the deadline date to 00/00/00.
7. Which of the following is *not* a type of task relationship?
 1. finish-to-start
 2. finish-to-finish
 3. start-to-start
 4. start-no-earlier-than-finish
8. A deadline date _____.
 1. is the due date of the project
 2. does not constrain a task
 3. is not indicated on the Gantt chart
 4. is a semi-flexible constraint
9. Which of the following allows the most flexibility in scheduling a task?
 1. semi-flexible constraint
 2. deadline date
 3. inflexible constraint
 4. none of the above
10. By default, Microsoft Project honors which of the following?
 1. constraint dates over relationships
 2. deadline dates over relationships
 3. relationships over constraint dates
 4. negative slack over relationships

Competency Assessment

Project 5-1: Setting a Constraint for Insurance Claim Processing

You are managing an insurance claim processing process, and have just been informed that the repairer, Chris Gray, will not be available for work after February 8, 2019, for several days. You need to set a constraint on one of his tasks to reflect this information, even if it causes a conflict with existing task relationships.

The *Insurance Claim Processing 5-1* project schedule is available on the book companion website.

GET READY. LAUNCH Microsoft Project if it is not already running. **OPEN** *Insurance Claim Processing 5-1* from the data files for this lesson.

1. Click on the name of task 16, **Repairer notifies adjuster**.
2. On the Task ribbon, in the Properties group, click the **Information** button. Click the **Advanced** tab.
3. In the Constraint type box, select **Start No Later Than**. In the Constraint date box, key or select **2/7/19**. Click **OK**.
4. In the Planning Wizard dialog box that appears, select the **Continue. A Start No Later Than constraint will be set** option. Click **OK**.
5. In the next Planning Wizard dialog box that appears, select **Continue. Allow the scheduling conflict** and then click **OK**.
6. **SAVE** the project schedule as *Insurance Claim Processing Constraint* and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Project 5-2: Adding Deadline Dates to the Tailspin Remote Drone Schedule

You have just received additional information about scheduling on the Tailspin Remote Drone, and need to add some deadline dates to your project schedule.

The *Tailspin Remote Drone 5-2* project schedule is available on the book companion website.

GET READY. OPEN *Tailspin Remote Drone 5-2* from the data files for this lesson.

1. Select the name of task 41, **Production development complete**.
2. On the Task ribbon, in the Editing group, click the **Scroll to Task** button.
3. Double-click the **task name cell** of task 41. Click the **Advanced** tab if it is not already selected.
4. In the Deadline box, key or select **4/19/19**. Click **OK**.
5. Select the name of task 48, **Production planning complete**. Click the **Scroll to Task** button.
6. On the Task ribbon, in the Properties group, click the **Information** button.
7. Click the **Advanced** tab.
8. In the *Deadline* box, key or select **4/30/19** and then click **OK**.
9. **SAVE** the project schedule as *Remote Drone Deadlines* and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Proficiency Assessment

Project 5-3: Creating Task Priorities for an HR Interview Schedule

You are making some changes and adjustments to your HR Interview project schedule, and have decided to establish task priorities for some tasks in case resource allocation issues arise later. In this project, you will make the indicated priority assignments.

The *HR Interview 5-3* project schedule is available on the book companion website.

GET READY. OPEN *HR Interview 5-3* from the data files for this lesson.

1. Select the name of task 21.
2. Open the Task Information dialog box.

3. Key or select a priority of **800**. Click **OK**.
4. Select the names of tasks 13 and 14.
5. Open the Task Information dialog box.
6. Key or select a priority of **400** for these two tasks. Click **OK**.
7. **SAVE** the project schedule as ***HR Interview Priorities*** and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Project 5-4: Establishing Deadline Dates for an Office Remodel

You would like to keep a closer eye on some of the tasks for the lunchroom office remodel project you are managing. You decide it is a good idea to add some deadline dates to several tasks. You know that Microsoft Project will alert you when a task's finish date moves beyond the deadline.

The ***Office Remodel 5-4*** project schedule is available on the book companion website.

GET READY. OPEN ***Office Remodel 5-4*** from the data files for this lesson.

1. Select the name of task 7.
2. Open the Task Information dialog box.
3. Set a deadline date of **2/5/19**.
4. Select the name of task 14.
5. Open the Task Information dialog box.
6. Set a deadline date of **2/22/19**.
7. **SAVE** the project schedule as ***Office Remodel Deadlines*** and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Mastery Assessment

Project 5-5: Changing Default Handling for Task Relationships/Constraints on Insurance Claim Processing

After a meeting with your project team, a decision has been made to honor task relationships over constraints for the Insurance Claim schedule from [Project 5-1](#). Another repairer has agreed to fill in for Chris Gray if necessary. You need to revise your project schedule to change the default method by which Microsoft Project handles relationships and constraints.

The *Insurance Claim Processing 5-5* project schedule is available on the book companion website.

GET READY. OPEN *Insurance Claim Processing 5-5* from the data files for this lesson.

1. Review the task list.
2. From the File ribbon, open the Project Options dialog box.
3. Select **Schedule**.
4. Clear the check box so that tasks do not always honor their constraint dates.
5. Click OK.
6. Review the task list and locate the task that has been affected by this change. In a separate Microsoft Word document, state the information that is contained in the calendar alert icon for this task, and briefly explain how your change has affected the task.
7. **SAVE** the project schedule as *Insurance Claim No Default*. **SAVE** the Word document as *Insurance Claim No Default*. **CLOSE** the files.

PAUSE. LEAVE Project open to use in the next exercise.

Project 5-6: Removing, Adding, and Changing Deadlines

You have just finished reviewing the Tailspin Remote Drone project schedule, and have decided to make some changes and additions to the deadlines on this project.

The *Tailspin Remote Drone 5-6* project schedule is available on the book companion website.

GET READY. OPEN *Tailspin Remote Drone 5-6* from the data files for this lesson.

1. Remove the deadline for task 9.
2. Change the deadline for task 27 to February 20, 2019.
3. Add a deadline of May 28, 2019, for task 54.
4. **SAVE** the project schedule as ***Remote Drone Revised Deadlines*** and then **CLOSE** the file.

Knowledge Assessment Lesson 6

Matching

Match the term in column 1 to its description in column 2.

Column 1	Column 2
1. cost rate table h	a. an absolute quantity of material resources will be used, no matter the duration of the task
2. underallocated e	b. the total work of a resource's task assignments is exactly equal to that resource's work capacity
3. variable consumption rate d	c. a resource is assigned to do more work than can be done within the normal capacity of the resource
4. units j	d. the amount of the material resource consumed is dependent upon the duration of the task
5. allocation i	e. the work assigned to a resource is less than the resource's maximum capacity
6. fixed consumption rate a	f. the process of delaying or splitting a resource's work on a task to resolve an overallocation
7. overallocated c	g. the maximum capacity of a resource to accomplish work
8. resource leveling f	h. resource pay rates that are stored on the Costs tab of the Resource Information dialog box
9. fully allocated b	i. the portion of a resource's capacity devoted to work on a specific task
10. Max. Units g	j. the measurement of a resource's capacity to work

True/False

Circle T if the statement is true or F if the statement is false.

T	F	1. Resource leveling cannot always resolve all resource overallocations.
T	F	2. A resource cannot have both a cost per use and a cost derived from its pay rate.
T	F	3. Resource leveling never changes who is assigned to tasks or the total work value of those assignments.
T	F	4. You can manually resolve a resource overallocation by replacing the overallocated resource with another resource.
T	F	5. You can assign two types of material consumption rates in Microsoft Project.
T	F	6. The settings in the Resource Leveling dialog box apply to all of the project schedules you work with in Microsoft Project.
T	F	7. You can have up to six cost rate tables for a resource.
T	F	8. It is not acceptable to allow a minor overallocation to remain in a schedule.
T	F	9. The default rate table in Microsoft Project is Rate Table 1.
T	F	10. When a variable consumption rate is assigned to a material resource, and the duration of the task to which it is assigned changes, so do the calculated amount and cost of the material resource.

Competency Assessment

Project 6-1: Assigning a Variable Consumption Rate for Water

As you are reviewing your Tailspin Remote Drone project schedule, you realize you need to make some adjustments to the bottled water material resource. You want to use a variable rate of 0.5 cases of water per hour.

ONLINE

The *Tailspin Remote Drone 6-1* project schedule is available on the book companion website.

GET READY. LAUNCH Microsoft Project if it is not already running. **OPEN** *Tailspin Remote Drone 6-1* from the data files for this lesson.

1. Scroll down in the task list to task 7, Conduct Survey.
2. Click the **Resource** ribbon and then click the **Assign Resources** button.
3. In the Assign Resources dialog box, click the **Units** field for Bottled Water. Key **0.5/d** and then press **Enter**.
4. Click the **Close** button in the Assign Resources dialog box.
5. **SAVE** the project schedule as **Remote Drone Bottled Water** and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Project 6-2: Setting Up Multiple Pay Rates for an Office Remodel

On the office remodel project you are currently managing, you need to set up different pay rates for one of the resources, Run Lui. He has different pay scales depending upon whether he is moving furniture and appliances or doing painting and material installation work.

ONLINE

The *Office Remodel 6-2* project schedule is available on the book companion website.

GET READY. OPEN *Office Remodel 6-2* from the data files for this lesson.

1. Click the **View** tab and then click **Resource Sheet** in the Resource Views group.
 2. In the Resource Sheet view, double-click the name of resource 3, **Run Lui**. The Resource Information dialog box appears.
 3. Click the **Costs** tab, if it is not already selected.
 4. Under Cost rate tables, click the **B** tab.
 5. Select the default entry of \$0.00/h in the field directly below the Standard Rate column heading, key **12/h**, and then press **Enter**.
 6. In the Overtime Rate field, key **18.00/h** and then press **Enter**.
 7. Click **OK** to close the Resource Information dialog box.
-

When you enter a pay rate, if you do not key in the currency symbol, Microsoft Project will supply it for you.

8. **SAVE** the project schedule as ***Office Remodel Multiple Rates*** and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Proficiency Assessment

Project 6-3: Using Resource Leveling for the Hiring New Employee Project

Several employees on the Hiring New Employee project schedule are overallocated. Use resource leveling to resolve these overallocations.

ONLINE

The ***Hiring New Employee 6-3*** project schedule is available on the book companion website.

GET READY. OPEN ***Hiring New Employee 6-3*** from the data files for this lesson.

1. Activate the Resource Sheet view.
2. Activate the Resource Leveling dialog box.
3. In the Resource Leveling dialog box, make the selections that correspond to the following options:
 - Level manually
 - Level day by day
 - Clear leveling values before leveling
 - Level the entire project
 - Use Standard leveling order
 - Do not level within available slack
 - Allow leveling to adjust individual assignments

- Allow leveling to create splits
 - Do not level resources with a proposed booking type
 - Do not level manually scheduled tasks
4. Click the **Level All** button.
 5. Change the view to the Leveling Gantt.
 6. Scroll to task 4 to view more of the leveled Gantt chart.
 7. **SAVE** the project schedule as *Hiring New Employee Leveled* and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Project 6-4: Specifying Conference Room Availability for Employee Orientation

You have just been told that the Large Conference Room is *not* available for use from 12/20/18 through 1/2/19 and from 1/11/19 through 1/23/19. Although this does not immediately interfere with your current orientation schedule, you want to update the resource availability information so that you can avoid conflicts if your schedule changes.

ONLINE

The *Employee Orientation 6-4* project schedule is available on the book companion website.

GET READY. OPEN *Employee Orientation 6-4* from the data files for this lesson.

1. Activate the Resource Sheet view.
2. Select the **Large Conference Room** resource.
3. Activate the Resource Information dialog box. Activate the General tab, if it is not already selected.
4. Fill in the Resource Availability table to reflect that the conference room is available until 12/19/14 and after 1/23/15, but that it is not available on the dates as noted in the instructions above. Close the Resource Information box when you are finished.
5. **SAVE** the project schedule as *Employee Orientation Conf Room Availability* and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Mastery Assessment Lesson 6

Project 6-5: Applying a Different Cost Rate

On the office remodel project you are currently managing, you have set up different pay rates for one of the resources, Run Lui. Now you need to apply these pay rates to the appropriate assignments.

The *Office Remodel 6-5* project schedule is available on the book companion website.

GET READY. OPEN *Office Remodel 6-5* from the data files for this lesson.

1. For Run Lui's assignment to tasks 2 and 18, change the cost rate table to B.
2. **SAVE** the project schedule as *Office Remodel Run Lui B* and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Project 6-6: Updating the Costs Per Use for the Tailspin Remote Drone Project

You need to update the Tailspin Remote Drone project schedule to reflect several resources that have a cost associated with each use.

The *Tailspin Remote Drone 6-6* project schedule is available on the book companion website.

GET READY. OPEN *Tailspin Remote Drone 6-6* from the data files for this lesson.

1. Enter the following cost per use information for the specified resources:
 - The testing field has an entry fee of \$100 each time it is used and it must be paid at the start of its use.
 - The large conference room has a \$30 cleaning fee per use, payable at the end of the session.
 - The small conference room has a \$25 cleaning fee per use, payable at the end of the session.
2. **SAVE** the project schedule as *Remote Drone Cost Per Use* and then **CLOSE** the file.

CLOSE Project.

. Knowledge Assessment Lesson 7

Fill in the Blank

Complete the following sentences by writing the correct word or words in the blanks provided.

1. filtering is a quick way to view only the task or resource information you choose.
2. In the Sort dialog box, you can utilize up to 3 nested levels of sort criteria.
3. When you use grouping, the group summary data rows are set off by a colored background.
4. When AutoFilter is turned on, small drop down arrows are visible next to the column headings.
5. A way to reorder task or resource information in a table and to display summary values according to various criteria you can choose is called a(n) group.
6. The filters dialog box shows you all of the predefined filters that are available to you for tasks or resources.
7. A(n) sort is a way of ordering task or resource information in a view by the criteria you specify.
8. When you apply a filter, you may see gaps in the order of the ID.
9. When you sort data in your project, the sort applies to the active view, no matter which table is displayed.
10. A tool that enables you to see or highlight in a table only the task or resource information that meets criteria you choose is a(n) filter.

Multiple Choice

Select the best response for the following statements.

1. Which of the following is the simplest way to reorganize data in Microsoft Project?
 1. filtering
 2. sorting
 3. grouping
 4. **AutoFiltering**
2. The function lets you reverse actions you have performed in Microsoft Project.
 1. Task Drivers
 2. Reverse Filtering
 3. **Multiple Level Undo**
 4. Ungrouping
3. Which of the following is the one instance in which the actual data of your project is changed by sorting?
 1. **The Permanently renumber resources check box is selected.**
 2. The Multiple Level Undo function is disabled.
 3. The project is saved before the sorting is reversed.
 4. All of the above.
4. When you apply a group to your project schedule, the data in the summary rows cannot be changed directly because of which of the following?
 1. It will cause the grouping to become permanent.
 2. It will alter the data in your project schedule.
 3. **It is derived from subordinate data.**

4. It will cause an error in the grouping function.
5. When AutoFilter is on, clicking on the down arrow next to the column heading does which of the following?
 1. sorts the data in descending order
 2. turns the AutoFilter off
 3. automatically adjusts the column width
 4. allows you to select criteria to apply to the filter
6. How many times can the Multiple Level Undo function be used?
 1. as many times as desired
 2. up to 99 times, or until the original data is restored
 3. up to 35 consecutive times
 4. up to 50 consecutive times
7. If a view has a filter applied to it, the name of the filter will be displayed in the Filter box on the _____ ribbon.
 1. Data
 2. Format
 3. View
 4. Resource Management
8. There is no visual indicator that a task or resource view has been sorted other than which of the following?
 1. the shaded summary rows
 2. the small s at the top of each data column
 3. the order in which the rows of data appear
 4. There is no visual indicator to show a view has been sorted.
9. Grouping might be helpful if you are trying to see which of the following?
 1. only the tasks that contain the word *weekly*
 2. the critical path tasks
 3. the tasks ordered from highest to lowest cost
 4. the total cost of each resource group
10. You cannot save custom settings that you have specified for which of the following?
 1. sorting
 2. grouping
 3. filtering
 4. all of the above

Competency Assessment Lesson 7

Project 7-1: Sorting by Multiple Criteria

You have some additional setup work that needs to be completed before the Tailspin Remote Drone project can begin. Because you will need to pay overtime (time and one-half) for work beyond 40 hours per week, you would like to get a volunteer who has a low standard rate. Sort your resources according to Standard Rate and Max Units so that you can make your request from the least-cost group of employees.

The *Tailspin Remote Drone 7-1* project schedule is available on the book companion website.

GET READY. LAUNCH Microsoft Project if it is not already running. **OPEN** *Tailspin Remote Drone 7-1* from the data files for this lesson.

1. Click the **View** ribbon. Then, in the Resource Views group, click **Resource Sheet**.
2. On the ribbon, click **Sort**, and then click **Sort by**.
3. In the Sort by section, select **Type** from the drop-down menu. Next to that, click **Descending**.
4. In the first *Then by* section, select **Standard Rate** from the drop-down menu. Next to that, click **Descending**.
5. In the last *Then by* section, select **Max Units** from the drop-down menu. Next to that, click **Descending**. Make sure the *Permanently renumber resources* box is *not* checked.
6. Click the **Sort** button.
7. **SAVE** the project schedule as *Remote Drone Standard Rate Sort* and then **CLOSE** the file.

LEAVE Project open for the next exercise.

Project 7-2: Applying an HR Filter

You are reviewing your project schedule for hiring a new employee. You want to specifically review the staff members from the Human Resources (HR) department who are involved with this project. You need to apply a filter that will screen out any staff except HR.

The *Hiring New Employee 7-2* project schedule is available on the book companion website.

GET READY. OPEN *Hiring New Employee 7-2* from the data files for this lesson.

1. Click the **View** ribbon and then click **Resource Sheet**.
2. Click the **down** arrow in the Group column heading, point to **Filters**, and then click **(Custom...)**.
3. In the Group section, select **contains** from the drop-down list in the first box if it is not already visible. In the adjacent box, key **HR**.
4. Click **OK**.
5. **SAVE** the project schedule as *Hiring New Employee HR Filter* and then **CLOSE** the project schedule.

PAUSE. LEAVE Project open to use in the next exercise.

Proficiency Assessment

Project 7-3: Sorting Resource Groups by Standard Rate for Remote Drone Music Video

You are working on employee reviews and pay increases for your staff for the upcoming year. You have decided it would be beneficial to be able to look at the standard rate variation within resource groups working on this project. You need to set up a custom group that will enable you to do this.

The *Tailspin Remote Drone 7-3* project schedule is available on the book companion website.

GET READY. OPEN *Tailspin Remote Drone 7-3* from the data files for this lesson.

1. Change the view to a Resource Sheet view.
2. From the ribbon, select **Group by: More Groups**.
3. Select **Resource Group** and then make a copy of this group.
4. In the Group Definition box, name the new group **Resource Groups by Standard Rate**.
5. On the *Group By* line, set up the grouping by Standard Rate in descending order.
6. Click **Define Group Intervals** and then set up this dialog box so that the grouping is done on Intervals of 5.
7. Select the group you have created and apply it to your project schedule.
8. Widen the Resource Name field so that you can see the Standard Rate groupings.
9. **SAVE** the project schedule as *Remote Drone Resource Groupings* and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Project 7-4: Performing a Duration Sort for an Office Remodel

You are responsible for the kitchen and lunchroom remodel for your office. Your manager has asked you which tasks on the project are scheduled to take the longest. You need to do a quick sort on the tasks to respond to his question.

The *Office Remodel 7-4* project schedule is available on the book companion website.

GET READY. OPEN *Office Remodel 7-4* from the data files for this lesson.

1. Change the view to the Gantt Chart view.
2. Change the table view to Summary.
3. From the View ribbon, select **Sort** and then select **Sort by**.
4. Set up the dialog box to sort by Duration in descending order. Make sure that the tasks are not permanently renumbered and uncheck the *Keep outline structure* check box.
5. Perform the sort.
6. **SAVE** the project schedule as *Office Remodel Duration Sort* and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Mastery Assessment

Project 7-5: Performing a Management Filter for Tailspin Remote Drone Project

You are the project manager for the Tailspin Remote Drone Project. You need to review all of the tasks to which Frank Zhang and Judy Lew are assigned. Frank is one of the driving force managers behind this project, and is Judy's boss. You want to make sure you have the required presentations ready on those days. You need to apply a filter to only the tasks with Frank Zhang assigned to them.

The *Tailspin Remote Drone 7-5* project schedule is available on the book companion website.

GET READY. OPEN *Tailspin Remote Drone 7-5* from the data files for this lesson.

1. Open the More Filters dialog box.
2. Begin to build a new filter named **Senior Management Task Filter**.
3. Build the first level of the filter based on Resource Name, which contains **Frank Zhang**.
4. Using **And** to link the levels, add a second level of the filter based on Resource Names, which contains **Judy Lew**.
5. Run the filter.
6. **SAVE** the project schedule as **Remote Drone Management Filter** and then **CLOSE** the file.

PAUSE. LEAVE Project open to use in the next exercise.

Project 7-6: Comparing Costs and Durations for Hiring a New Employee

You want to compare the cost of tasks that have the same duration in your project schedule to hire a new employee. You need to set up a custom group in order to group the data by duration and then by cost.

The **Hiring New Employee 7-6** project schedule is available on the book companion website.

GET READY. OPEN **Hiring New Employee 7-6** from the data files for this lesson.

1. Switch to the Task Usage view.
2. Use the Duration to set up a new custom group called Duration-Cost.
3. Set up the new group so that it groups by descending Duration and then descending Cost.
4. Apply the Duration-Cost group.
5. **SAVE** the project schedule as **Hiring Duration Cost Group** and then **CLOSE** the file.

CLOSE Project.