Names \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| Act | I.P. | Time |
| A | --- | 30 |
| B | --- | 10 |
| C | --- | 7 |
| D | B | 12 |
| E | B | 5 |
| F | C | 6 |
| G | F | 2 |
| H | F | 12 |
| I | D | 5 |
| J | E,G | 6 |
| K | I,J,H | 10 |
| L | H | 12 |
| M | K | 3 |

**BA 352: ICE 6**

The project on the right is the same as ICE 5. Continue to assume that the project starts/started on 10/2/23.

1) If you could decrease any activity by half, with the goal of minimizing project completion time, which would you choose? This is easy now with MS Project. For each of the 5 critical path activities, try cutting the time in half and see what that does to the project completion time – record the results for each attempt. After you’ve cut the time for an activity, you will need to highlight all activities and then use “Respect Links” to get the new time. After you’ve tried an activity, undo a couple of times to get back to the original project before trying the next one.

2) If you had to double the time of one of the activities on this project, but you don’t want to increase the overall project completion time, which one should you choose?

3) The original project time is 40 days. To get done four days early and try to earn a bonus, management has decided to work the next four Saturdays. Figure out in MS Project how to add those days as “Working Days” and get the new schedule. Hint: “Change Working Time.” What is the new completion date given the project started ~~on 2/27 and we work Saturdays in March?~~ 10/2/23 and we will work the last three Saturdays in October and the first one in November?

4) **Resource Planning:** How do you assign your crew to get the job done? Assume that **one crew member can complete a task** but cannot work on two at the same time. Reset the project to not work any Saturdays.

1. Click on the Resource tab, then Team Planner, then Resource Sheet. Enter one employee on the sheet – Eric Cartman – at $100/hour. Going back to the Gantt view, assign Cartman to each task using the Resource Names column.
2. Again from the Resource tab, highlight all tasks and try the “Level Selection”, “Level Resource” and “Level All” buttons, *undoing what you did each time*. What does this do to the project? Why? What is the new completion date?
3. Go back to the resource sheet and add three additional employees, Kyle Broflovski, Kenny McCormick and Stan Marsh at $110, $125 and $150 per hour respectively. Assign all four employees to different tasks and see if you can get the project back to the original deadline from part c), or if not, as close to it as possible. Print out your best Gantt chart (on a separate, single page) with the employees assigned appropriately.
4. Now to cost: Under the Report tab, click the Costs button and look at the Resource Cost and Task Cost reports. Your goal now is to **get the project done as early as possible and at the minimum total cost**. Move the employees around to different tasks until you achieve the best plan possible. Better yet, figure out a way to get MS Project to do this for you. **Print out a couple of reports** that show the minimum time you achieved with the four employees at the minimum cost. [I’m not sure if there is a way to “optimize” this, so you’ll be competing with your classmates for the best answers.]

This is your crew. Your project might be in trouble