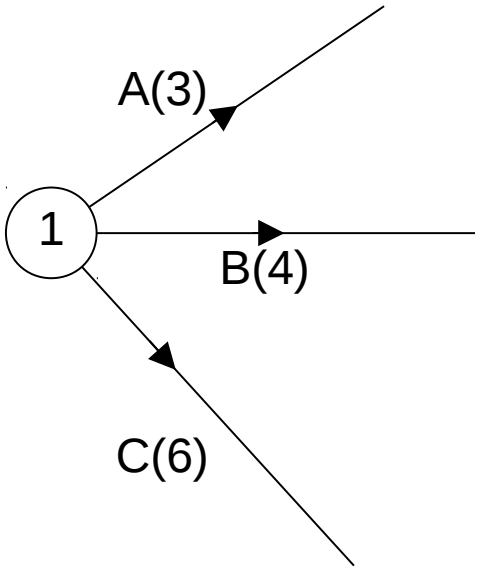
# Activity networks – Example 1

The table below shows the tasks involved in a project, with their durations and immediate predecessors.

| Task | Duration (hours) | Immediate predecessors |
|---|---|---|
| A | 3 | - |
| B | 4 | - |
| C | 6 | - |
| D | 5 | A |
| E | 1 | B |
| F | 6 | B |
| G | 7 | C, D, E |

Draw an activity network for the project.

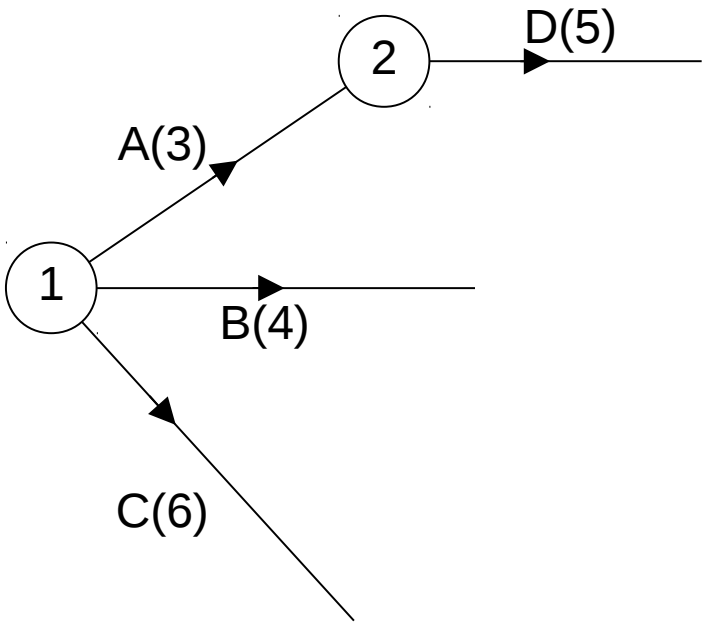
# Activity networks – Example 1




First draw a start node labelled 1.

Activities A, B and C do not depend on any other activity, so they all begin at node 1.

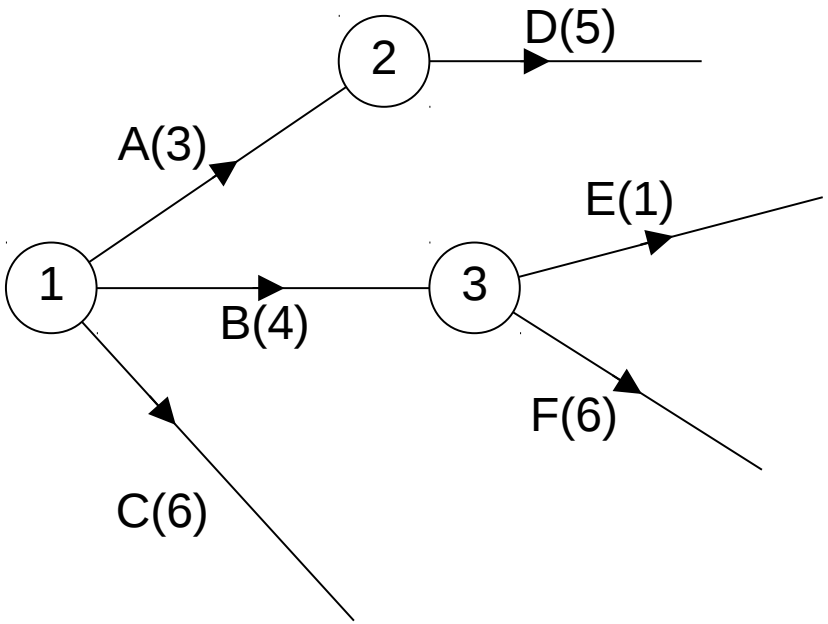
# Activity networks – Example 1




Activity D depends on A, so add event node 2 at the end of A.

Now add activity D.

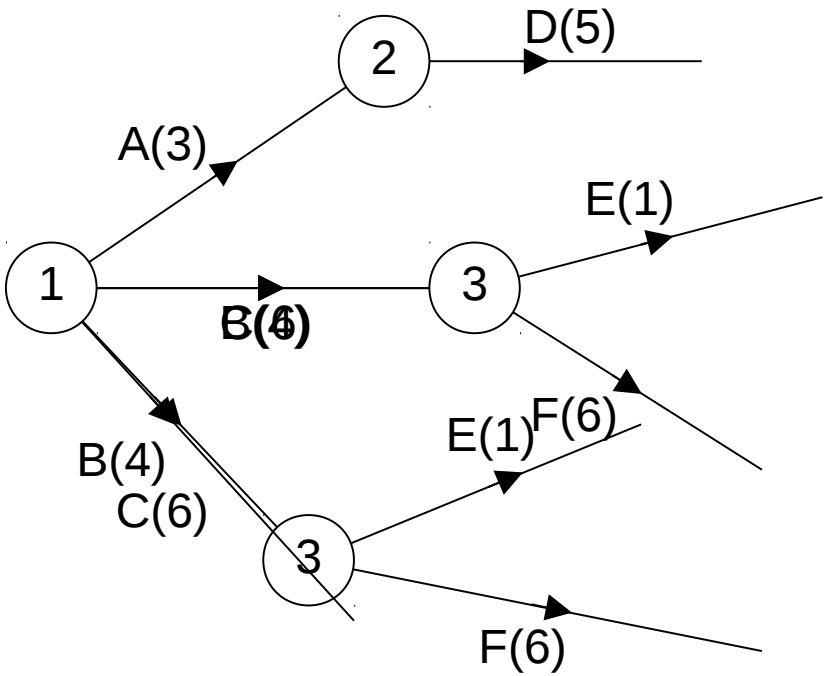
# Activity networks – Example 1




Activities E and F both depend on B, so add event node 3 at the end of B.

Now add activities E and F.

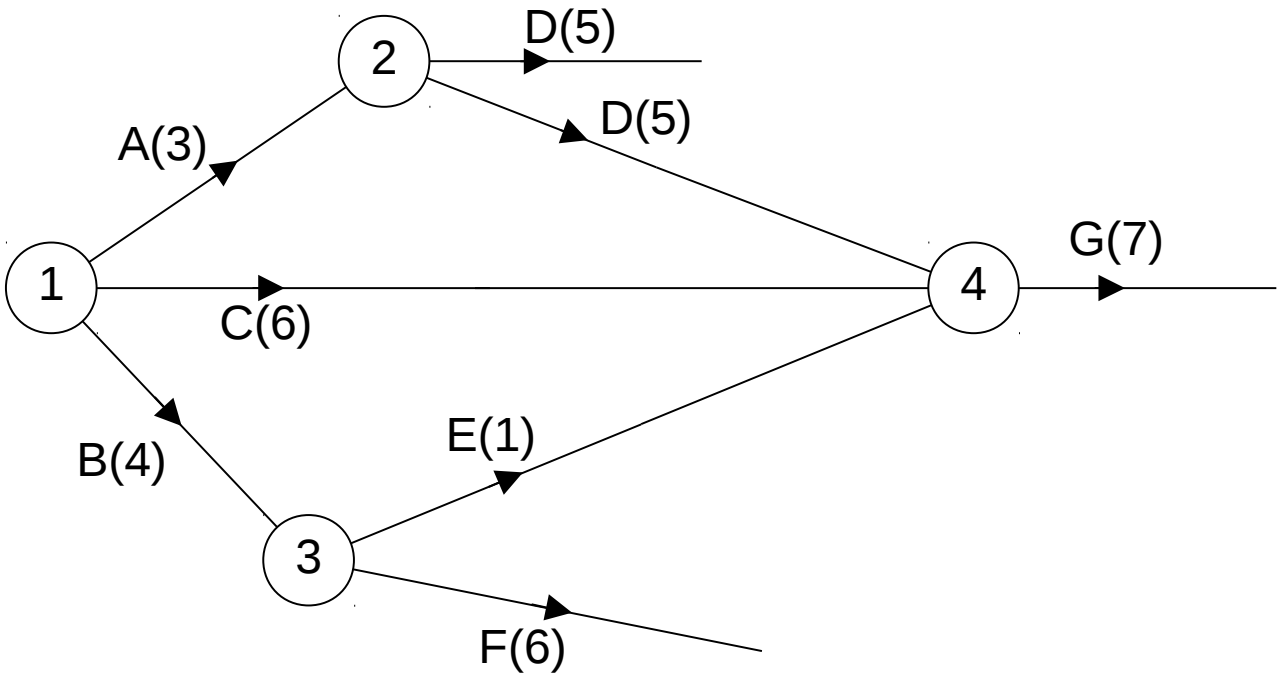
# Activity networks – Example 1




Activity G depends on C, D and E, so all these three events need to end at the same node.

This is easiest if you redraw the network so that C is between A and B.

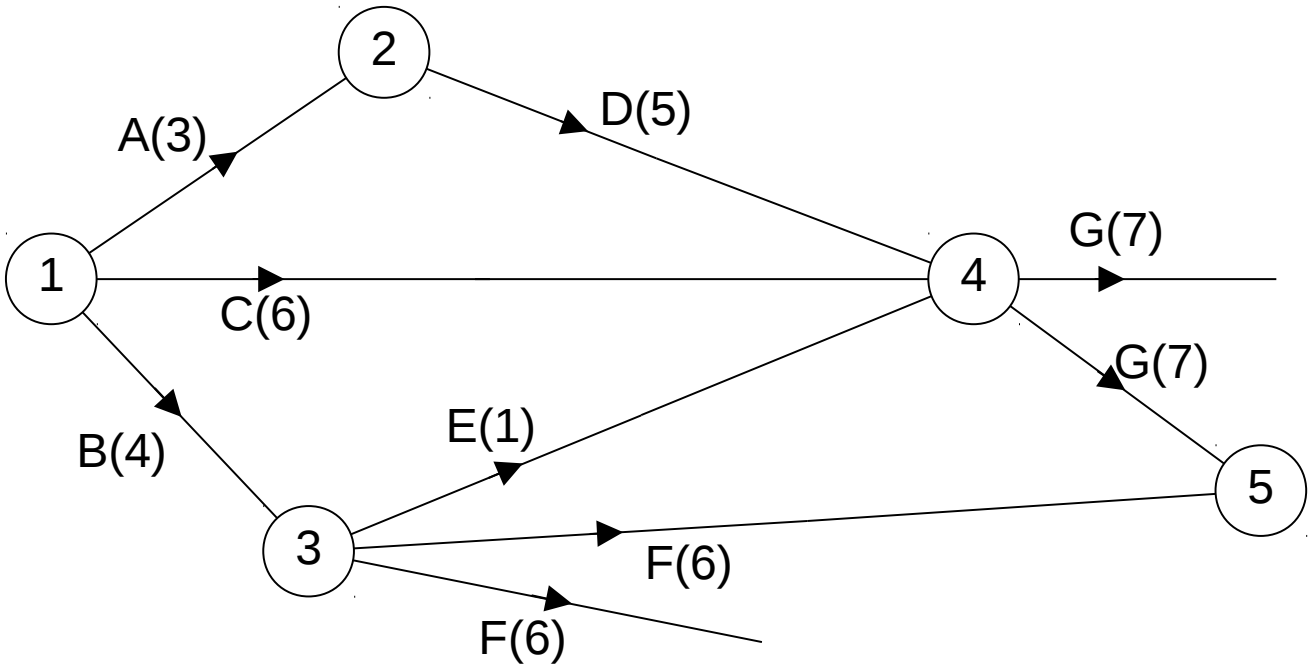
# Activity networks – Example 1




Now add node 4, with C, D and E leading into it.

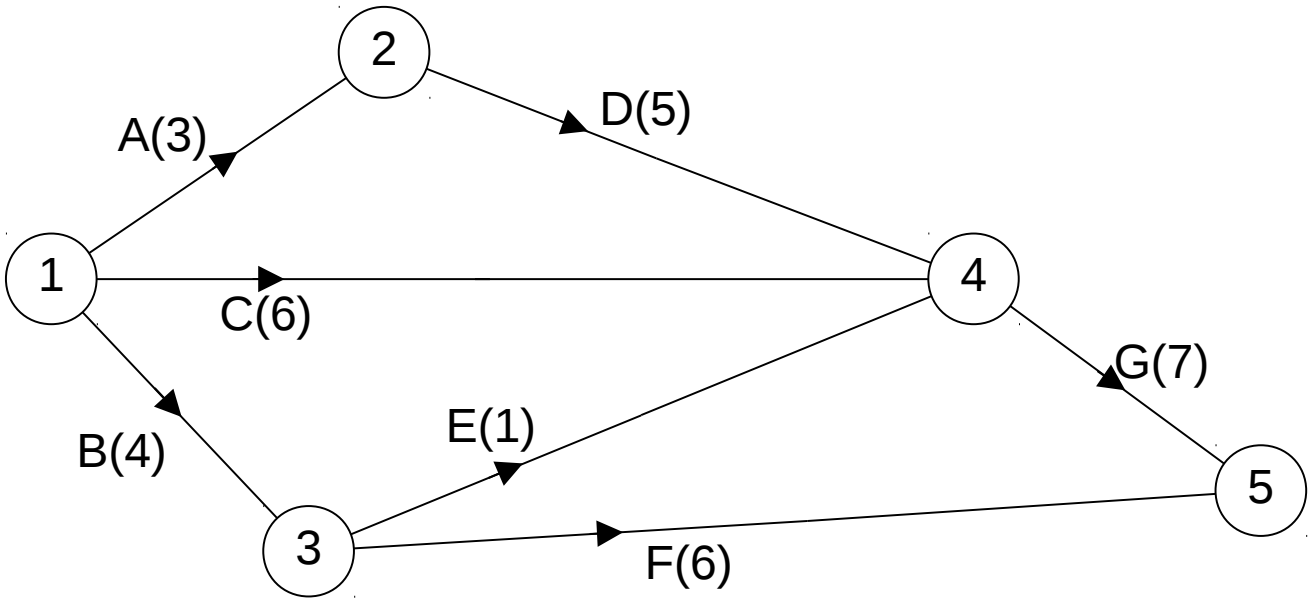
Now add activity G.

# Activity networks – Example 1




A finish node is now needed. Any activities not leading into a node must end at the finish node.

# Activity networks – Example 1




The network is now complete.