M2c

Suppose these five separate tasks must be completed from the time an airplane lands until it is ready to take off again:

<table>
<thead>
<tr>
<th>Task</th>
<th>Activity</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task A</td>
<td>Unload passengers</td>
<td>13 minutes</td>
</tr>
<tr>
<td>Task B</td>
<td>Unload cargo</td>
<td>25 minutes</td>
</tr>
<tr>
<td>Task C</td>
<td>Clean and refuel</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Task D</td>
<td>Load new cargo</td>
<td>22 minutes</td>
</tr>
<tr>
<td>Task E</td>
<td>Load new passengers</td>
<td>27 minutes</td>
</tr>
</tbody>
</table>

Further suppose:

1. Passengers must be unloaded before cleaning and refueling.

2. Cargo must be unloaded and plane must be cleaned and refueled before loading new passengers.

3. Cargo must be unloaded before new cargo is loaded.

Assume you have as many workers as you need.

What is the shortest time it will take to prepare the plane to fly again?