MeetMe

How to solve it
Intersecting available times

- **Potential meeting times**
  - 7:30am to 6pm

- **Kevin's available times**
  - 7am to 8:30 am
  - 11am to 12:30 pm
  - 4:30pm to 6:00pm

- **Mary's available times**
  - 10:30am to 12:00pm
  - 1:30pm to 3:00pm
  - 5:00pm to 6:30pm

Meeting Time Range
Expected result

<table>
<thead>
<tr>
<th>Potential meeting times</th>
<th>Kevin's available times</th>
<th>Mary's available times</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-noon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-6pm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Meeting Time Range

- 7:30am to 6pm
- 7am to 8:30am
- 11am to 12:30pm
- 5:00pm to 6:30pm
- 10:30am to 12:00pm
- 1:30pm to 3:00pm
- 4:30pm to 6:00pm
First Kevin ...

Create empty list of new available times

For each of Kevin’s times
  For each available block
    if they overlap
      place overlap in new available times list

Available blocks = new available times list
Then Mary ...

<table>
<thead>
<tr>
<th>Time</th>
<th>Potential times (old)</th>
<th>Mary's available times</th>
<th>Potential times (new)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11am to 12:30 pm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:30am to 12:00pm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:30pm to 3:00pm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:30pm to 6:00pm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Then Mary ...

Create empty list of new available times

For each of Mary’s times
   For each available block
      if they overlap
         place overlap in new available times list

Available blocks = new available times list
Leaving the intended result

<table>
<thead>
<tr>
<th>Potential meeting times</th>
<th>Kevin's available times</th>
<th>Mary's available times</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30am to 6:00pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7am to 8:30am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:30am to 12:00pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:30pm to 3:00pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:30pm to 6:00pm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Kevin's available times:
- 11-noon
- 5-6pm

Mary's available times:
- 11-noon
- 5-6pm
So the key method on an AvailTime object is “intersect with agenda”

Create empty list of new available times

For each block in agenda
  For each available block
    if they overlap
      place overlap in new available times list

Available blocks = new available times list