In this worksheet, you will use weighted averages to answer several questions about class grades, GPA and other applications.

1. In a certain class, homework counts for 20% of the grade, the midterm exam counts for 30% and the final exam counts for 50% of the grade. Calculate the overall grade for each of the students with the scores described below. Try to do these without a calculator.

Alfred:
- Homework: 0%
- Midterm Exam: 80%
- Final Exam: 80%

Betty:
- Homework: 90%
- Midterm Exam: 70%
- Final Exam: 80%
2. Calculate the overall GPA for a student with the following transcript:
   Biology (5 credits) - 2.8
   Beginning Algebra (5 credits) - 3.1
   Physical Education (1 credit) - 2.5
   Quantum Electrodynamics (5 credits) - 0.0

3. A certain tourist guide ranks restaurants by weighting the scores in several categories: quality of food, quality of service, and reasonableness of price. The scores are on a scale of 0-10. If price and service are each 30% of the total, and quality of food is 40%, which of the following two restaurants will end up with a higher overall score in the tourist guide?

<table>
<thead>
<tr>
<th>McBurgers</th>
<th>Metropolitan Bill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Food: 4</td>
<td>Quality of Food: 10</td>
</tr>
<tr>
<td>Quality of Service: 5</td>
<td>Quality of Service: 6</td>
</tr>
<tr>
<td>Reasonableness of Price: 9</td>
<td>Reasonableness of Price: 1</td>
</tr>
</tbody>
</table>