12.3 The rates on high quality corporate bonds shall be used to discount employee benefit obligations payable beyond 12 months after the end of the reporting period when there is an active and liquid market in high quality corporate bonds.

12.15 (a) Jerry Lopez’s annual leave will cost his employer $100,000 x 4/52 x 1.175. This equals $9038 or $174 per week. Therefore, the total amount paid to Lopez each year would be:

For 48 weeks at normal pay-rate: $100,000 x 48/52 = $92,308
For 4 weeks inclusive of loading: $100,000 x 4/52 x 1.175 = $9,038
Total salary and annual leave = $101,346

If Lightning Bolt Ltd recognises the annual leave obligation throughout the year there would be the following entry each week:

Dr Annual leave expense 174
Cr Provision for annual leave 174

(b) If Lopez was to take two weeks annual leave, and assuming the related tax is $1200, the entry would be:

Dr Provision for annual leave 4,519
Cr PAYG tax payable 1,200
Cr Cash at bank 3,319

($4,519 = $9038/2)

Lightning Bolt Ltd would also need to provide the usual weekly annual leave journal entry, even when Lopez is on holidays. That is:

Dr Annual leave expense 174
Cr Provision for annual leave 174

12.16

<table>
<thead>
<tr>
<th>Years of service</th>
<th>Current salary</th>
<th>No.</th>
<th>Salary x number of employees</th>
<th>Inflation</th>
<th>N to maturity</th>
<th>Proj. sal.</th>
<th>Entitlement</th>
<th>PV</th>
<th>Prob.</th>
<th>LSL prov’n</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 yrs</td>
<td>50,000</td>
<td>2</td>
<td>100,000</td>
<td>1.025</td>
<td>2</td>
<td>105,062.5*</td>
<td>15,759.38**</td>
<td>14,025.79***</td>
<td>0.45</td>
<td>6311.61****</td>
</tr>
<tr>
<td>7 yrs</td>
<td>65,000</td>
<td>2</td>
<td>130,000</td>
<td>1.025</td>
<td>1</td>
<td>133,250</td>
<td>23,318.75</td>
<td>21,998.82</td>
<td>0.7</td>
<td>15,399.17</td>
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<tr>
<td>8 yrs</td>
<td>70,000</td>
<td>2</td>
<td>140,000</td>
<td>1.025</td>
<td>0</td>
<td>140,000</td>
<td>28,000.00</td>
<td>28,000</td>
<td>1</td>
<td>28,000</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$49,710.78</td>
</tr>
</tbody>
</table>

*(1.025)^2 x $100,000 = $105,062.50

** 6/10 x 13 x $105,062.50/52 = $15,759.38

*** $15,759.38 ÷ 1/(1.06)^2 = $14,025.79

**** $14,025.79 x 0.45 = $6311.61
Note: the interest rate at the beginning of the year of 8% was not relevant. What is relevant are the rates in place at the end of the reporting period that match the period until maturity.

Dr    LSL Expense       $17,211  
Cr    LSL Provision      $17,211

Increase in provision = closing balance of provision – opening balance of provision

= $49,711 - $32,500 = $17,211

12.18 (a) Calculations (see notes below for explanation of calculations under each column):

<table>
<thead>
<tr>
<th>Employee name</th>
<th>Projected salary</th>
<th>Accumulated LSL benefit</th>
<th>Present value of LSL obligation</th>
<th>Probability that LSL will be paid</th>
<th>LSL liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>48,760</td>
<td>1,563</td>
<td>724</td>
<td>15%</td>
<td>109</td>
</tr>
<tr>
<td>White</td>
<td>46,866</td>
<td>3,004</td>
<td>17,481</td>
<td>20%</td>
<td>350</td>
</tr>
<tr>
<td>Brown</td>
<td>56,308</td>
<td>5,414</td>
<td>3710</td>
<td>50%</td>
<td>1855</td>
</tr>
<tr>
<td>Green</td>
<td>64,946</td>
<td>8,326</td>
<td>6595</td>
<td>70%</td>
<td>4617</td>
</tr>
<tr>
<td>Purple</td>
<td>72,828</td>
<td>11,671</td>
<td>10,426</td>
<td>90%</td>
<td>9383</td>
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<td></td>
<td></td>
<td></td>
<td>16,314</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes
1. The projected salary is determined by the following calculation:
   Current salary x (1 + inflation rate)^n, where n = number of years until the long service leave entitlement vests. In this question it is assumed that the inflation rate will continue to be 2%. For the first listed employee, the calculation would be $40,000 x (1.02)^{10} = $48,760.

2. Accumulated LSL benefit is determined by the following calculation:
   Accumulated LSL entitlement = (years of employment)/(number of periods until entitlement can be taken in leave) x weeks of LSL entitlement/52 x projected salary.
   For the first listed employee, the calculation would be 2/12 x 10/52 x $48,760 = $1,563.

3. The present value of the long-service leave calculation is determined by the following calculation:
   Accumulated long service leave benefit
   (1 + appropriate government bond rate)^n
   where n is the number of years until long-service leave entitlements can be taken. For the first listed employee the calculation would be $1,563/(1.08)^{10} = $724.
4. Probability that long-service leave will be taken:
The probability that long-service leave will be taken would be determined by reference to prior experience within the organisation and industry. For example, it has been assessed that an employee with 2 years service has a probability of 15 per cent of staying in the firm until long-service leave must be taken. Once an employee reaches the pre-conditional period (in this question, 12 years) the probability is 100% that a payment will be made. For the first listed employee, the calculation would be $724 \times 0.15 = $109.

Following on from the above calculations, after considering all five employees, the long service leave provision at the end of the period should total $16,314.

(b) If the balance in the provision account at the beginning of the year had been $12,500, then the expense for the year would be $3,814. This would represent the increase in the obligation that has occurred throughout the year. The accounting entry to recognise the long-service leave expense would be:

\[
\begin{align*}
\text{Dr} & \quad \text{Long-service leave expense} & \quad 3,814 \\
\text{Cr} & \quad \text{ Provision for long-service leave} & \quad 3,814
\end{align*}
\]