Fill in the blanks in the table below. Show your work; i.e., the formulas/algebra you used for each step.

<table>
<thead>
<tr>
<th>Noise at 1Hz and 290deg K</th>
<th>-174</th>
<th>-174</th>
<th>-174</th>
<th>-174</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bandwidth</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Noise - dBm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preamp Noise Figure - dB</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Preamp Gain - dB</td>
<td>0</td>
<td>20</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Preamp Power Gain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receiver Noise Figure - dB</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Noise Ratio</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise Ratio 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise Ratio 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective Noise Figure - dB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise Floor - dBm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desired So/No Ratio - dB</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Sensitivity - dBm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Order Intercept - dBm</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Input 3rd Order Intercept - dBm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic Range - dB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The formula for Noise Ratio is \( NR = NR_1 + \frac{(NR_2 - 1)}{PG_1} \)