20/20 Vision Activity – Eye Chart

Using a Snellen Eye Chart

The chart is usually read while standing at a distance of 20 feet. Acuity is represented as a fraction, with the distance at which you are standing being the numerator (top part of fraction), and the normal maximum legible viewing distance ("Distance" on the chart below) as the denominator (bottom of fraction). So if, at 20 feet, you can read the letters on the row marked “40,” this means you have visual acuity of 20/40 or better: 1/2 normal. From 10 feet, if the smallest letters you could read were on the “40” line, this would give you an acuity of 10/40: 1/4 normal. If you are nearsighted, your vision will become more normal the closer you stand to the chart.

Make your own eye chart!

For those enterprising souls out there who would like to laser print or draw by hand their own eye chart, or if you would like to verify that your printout is of the correct proportions, here are the specs:

<table>
<thead>
<tr>
<th>Distance (feet)</th>
<th>70</th>
<th>60</th>
<th>50</th>
<th>40</th>
<th>30</th>
<th>20</th>
<th>15</th>
<th>10</th>
<th>7</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>letter ht (mm)</td>
<td>31</td>
<td>27</td>
<td>22</td>
<td>18</td>
<td>13</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>letter ht (pt)</td>
<td>88</td>
<td>76</td>
<td>63</td>
<td>50</td>
<td>38</td>
<td>25</td>
<td>19</td>
<td>13</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>font size (pt)</td>
<td>152</td>
<td>130</td>
<td>108</td>
<td>87</td>
<td>65</td>
<td>43</td>
<td>33</td>
<td>21</td>
<td>15</td>
<td>9</td>
</tr>
</tbody>
</table>

Interpreting the chart

“Distance” in the above table refers to the furthest distance from the chart at which a normal eye is able to read the letter. On a Snellen eye chart, row’s letters of a given size have the corresponding distance number next to them. Thus, row of 18mm letters is marked “40.” The font must be Courier (or Courier Bold) in order for the "font size" in points to correspond to the indicated letter height. Courier Bold is the PostScript font that most closely approximates the official Snellen letters.

Note: the top of the second page of the eye chart will need to be taped to the bottom of the first page of the eye chart (at the dotted line). Be sure to cover the dotted line with your paper.

20  R X J B T I F P A
15  I R G H J D S E U O Q X
10  H N M K L D R T Y E W I O Q P R E
  F D R T K S W Q I V D H K I U T X S B K D F E
  B O F C P T E B L F B E Z C O P E