Unit 12 - Week 10

Assignment 10

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-04-08, 23:59 IST.

1) Suppose a textile engineer wanted to evaluate fiber orientation distribution in a fibrous web. She measured the fiber orientation angle and obtained the following result.

<table>
<thead>
<tr>
<th>Angle</th>
<th>7°</th>
<th>50°</th>
<th>-60°</th>
<th>-9°</th>
<th>66°</th>
<th>-80°</th>
<th>32°</th>
<th>-30°</th>
<th>88°</th>
<th>-44°</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>52°</td>
<td>-24°</td>
<td>24°</td>
<td>-80°</td>
<td>-40°</td>
<td>82°</td>
<td>-10°</td>
<td>48°</td>
<td>9°</td>
<td>1°</td>
</tr>
<tr>
<td></td>
<td>-64°</td>
<td>89°</td>
<td>66°</td>
<td>29°</td>
<td>-87°</td>
<td>63°</td>
<td>-66°</td>
<td>-46°</td>
<td>-10°</td>
<td>-25°</td>
</tr>
</tbody>
</table>

She took ten classes to construct the frequency distribution. The measure of anisotropy of fiber orientation that she obtained was

- [ ] 1
- [ ] 1.2
- [ ] 1.5
- [ ] 1.7

No, the answer is incorrect.
Score: 0
Accepted Answers: 1

2) A fibrous material, made up of polyester fibers of 44 mm length, 2 denier fineness and 1380 kg/m³ density, had 500 mm length, 500 mm width, and 50 mm thickness. The weight of the fibrous material was 100 g. In this material, the fibers were isotropically distributed in all three directions. The number of fibers that were present per unit area (mm²) of this fibrous material was

- [ ] 60
- [ ] 90
- [ ] 120
- [ ] 150

No, the answer is incorrect.
Score: 0
Accepted Answers: 120