Question One (5-Points)
Write True if the statement is true or False if not:
1. The mode can be used for categorical data: TRUE
2. The third quartile is affected by extreme values: FALSE
3. For right skewed data distribution the mean is greater the mode: TRUE
4. The population variance always less than the sample variance: FALSE
5. The range ignores the way in which data are distributed: TRUE

Question Two (5-Points)
The following observations are the daily sales in thousands of supermarket in S.R

<table>
<thead>
<tr>
<th>46</th>
<th>57</th>
<th>69</th>
<th>49</th>
<th>78</th>
<th>65</th>
<th>55</th>
<th>47</th>
<th>61</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>53</td>
<td>63</td>
<td>74</td>
<td>61</td>
<td>48</td>
<td>70</td>
<td>73</td>
<td>64</td>
<td>50</td>
</tr>
</tbody>
</table>

Use the above data sample to answer the following questions

1. The sample median is equal to:
   a. 60.1
   b. **60.5**
   c. 61
   d. 59

2. The sample standard deviation is equal to:
   a. 9.3161
   b. 86.79
   c. **9.5581**
   d. 91.3579

3. The coefficient of variation is:
   a. **15.90%**
   b. 9.56%
   c. 15.50%
   d. 6.45%

4. The inter quartile range is equal to:
   a. 9.75
   b. 32
   c. 7.5
   d. **17.25**

5. Based on the sample, the distribution of the data is:
   a. Symmetric
   b. **Left-skewed**
   c. Right-skewed
   d. Can’t be determined