1. (a) $\bar{x} = .292$
   $o_x = .111$
   med = .24
   IQR = .18
   min = .15
   max = .50

2. (b) Pos Skewed
   med = .24
2 a) Find the IQR by subtracting Q1 from Q3. Multiply IQR by 1.5
    Add to Q3 if values are bigger than they are outliers. Subtract
    from Q1 if values are smaller then they are outliers
2b)  $IQR = .73 - .41 = .32(1.5) = .48$

$.73 + .48 = 1.21$

$.41 - .48 = -.07 \text{ will not occur}$

Yes, any value above 1.21 is an outlier & the max of the data is 1.29. Therefore there is at least 1 outlier.
3a) When data is not symmetrical use a trimmed mean.

b) Using IQR method
   - Using IQR method
   - There are outliers: $Q_3 + 1.5 \times IQR$
   - $Q_1 - 1.5 \times IQR$
5 a) \[ z = \frac{X - \overline{X}}{S} \]

**Chest:** \[ \frac{82.3 - 90.3}{55} = -1.45 \]

**Waist:** -6.19

**Hips:** -4.67

*Barbie's waist measurement is the most different in terms of standard deviation because it is the most different from the mean.*
b) Yes, because the z scores are (-)
   the patient is below all the "normal"
   main measurements.

\( z = \frac{x - \bar{x}}{S} = \frac{80 - 69.8}{4.7} = 2.17 \approx 98.5\% \)
(a) \[ N = 102 \quad \text{and} \quad \frac{2(102)}{20 \times n} \approx 0.1 \quad 8 \text{ inches} \]

\[ 0.1 \times 8 = 0.8 \text{ inches} \]

(b) Middle 68% \[ \bar{x} = 11.5 \quad \text{and} \quad \text{std} = 3.842 \]

\[ 11.5 - 3.842 = 7.658 \]
\[ 11.5 + 3.842 = 15.342 \]

(c) \[ 0.00(1 - \frac{1}{k}) = 0.75 \quad k = 2 \]
\[ 11.5 + 3.842 = 15.342 \]
<table>
<thead>
<tr>
<th>Queen</th>
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<tbody>
<tr>
<td>4</td>
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<tr>
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<td>56</td>
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<td>98</td>
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</tbody>
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Median: 92
Mean: 585
Range: 29