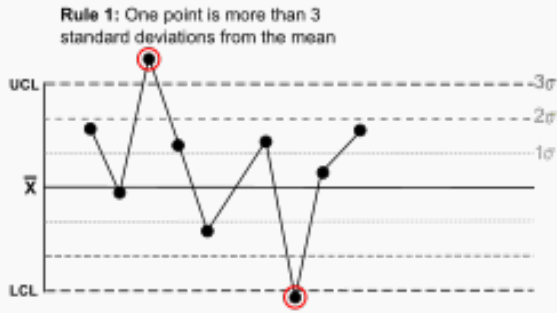
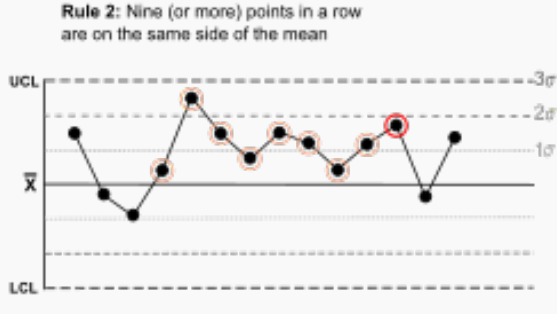
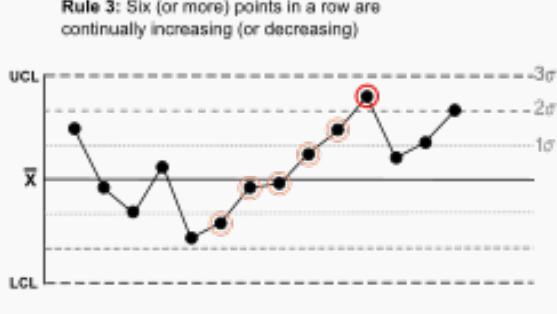
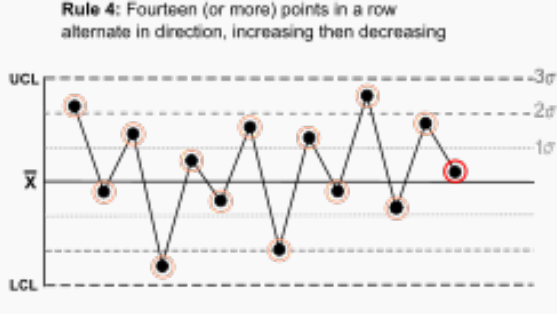
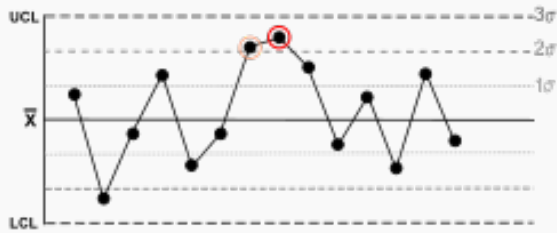
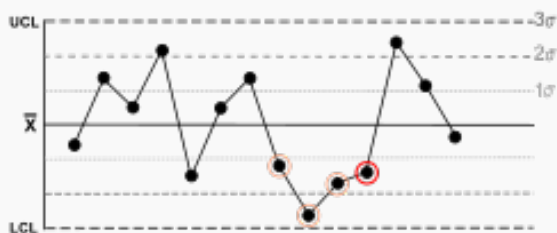
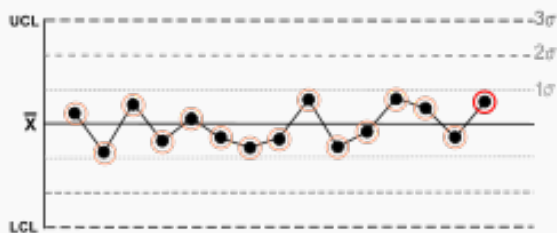
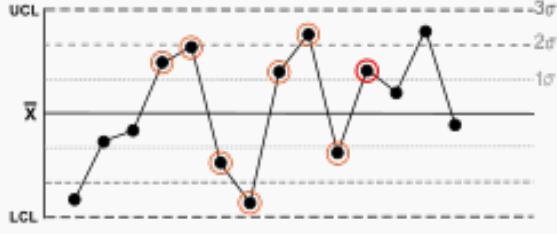


Rule	Description	Chart Example	Problem Indicated
Rule 1	One point is more than 3 standard deviations from the mean.	<p>Rule 1: One point is more than 3 standard deviations from the mean</p> 	One sample (two shown in this case) is grossly out of control.
Rule 2	Nine (or more) points in a row are on the same side of the mean.	<p>Rule 2: Nine (or more) points in a row are on the same side of the mean</p> 	Some prolonged bias exists.
Rule 3	Six (or more) points in a row are continually increasing (or decreasing).	<p>Rule 3: Six (or more) points in a row are continually increasing (or decreasing)</p> 	A trend exists.
Rule 4	Fourteen (or more) points in a row alternate in direction, increasing then decreasing.	<p>Rule 4: Fourteen (or more) points in a row alternate in direction, increasing then decreasing</p> 	<p>This much oscillation is beyond noise.</p> <p>Note that the rule is concerned with directionality only. The position of the mean and the size of the standard deviation have no bearing.</p>

<p>Rule 5</p>	<p>Two (or three) out of three points in a row are more than 2 standard deviations from the mean in the same direction.</p>	<p>Rule 5: Two (or three) out of three points in a row are more than 2 standard deviations from the mean in the same direction</p> 	<p>There is a medium tendency for samples to be mediumly out of control.</p> <p>The side of the mean for the third point is unspecified.</p>
<p>Rule 6</p>	<p>Four (or five) out of five points in a row are more than 1 standard deviation from the mean in the same direction.</p>	<p>Rule 6: Four (or five) out of five points in a row are more than 1 standard deviation from the mean in the same direction</p> 	<p>There is a strong tendency for samples to be slightly out of control.</p> <p>The side of the mean for the fifth point is unspecified.</p>
<p>Rule 7</p>	<p>Fifteen points in a row are all within 1 standard deviation of the mean on either side of the mean.</p>	<p>Rule 7: Fifteen points in a row are all within 1 standard deviation of the mean on either side of the mean</p> 	<p>With 1 standard deviation, greater variation would be expected.</p>
<p>Rule 8</p>	<p>Eight points in a row exist with none within 1 standard deviation of the mean and the points are in both directions from the mean.</p>	<p>Rule 8: Eight points in a row exist with none within 1 standard deviation of the mean and the points are in both directions from the mean</p> 	<p>Jumping from above to below whilst missing the first standard deviation band is rarely random.</p>

Source: https://en.wikipedia.org/wiki/Nelson_rules