



ASQ CRE Prep course

Lesson IV. B. 2. b.

Reliability Prediction Methods

Uncertainty

A wide-angle photograph of a two-lane asphalt road winding through a vast, snow-covered landscape. The road is dark and contrasts sharply with the white snow on either side. Yellow reflective markers are placed along the edges of the road. In the background, snow-covered mountains rise against a pale, overcast sky. The overall scene conveys a sense of isolation and a journey through a winter wonderland.

Polish that crystal ball

UNCERTAINTY CALCULATIONS

Prediction Uncertainty

**“Prediction is difficult,
Especially when
dealing with the
future.”**

... Danish Proverb



Prediction Uncertainty

**Exponential
distribution**

**Confidence intervals &
bounds**



Prediction Uncertainty

Normal distribution

$$\bar{X}_L = \bar{X} - Z \frac{\sigma}{\sqrt{n}}$$



Sketch out the
problem



ASQ CRE Prep course

Lesson IV. B. 2. c.

Reliability Prediction Methods

Tolerance Intervals