Unit 1 Formulas

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| $$MAD=\frac{\sum\_{}^{}|x\_{i}-\overbar{x}|}{n}$$ | $$σ^{2}=\frac{\sum\_{}^{}(x\_{i}-\overbar{x})^{2}}{n}$$ |
| $$σ=\sqrt{\frac{\sum\_{}^{}\left(x\_{i}-\overbar{x}\right)^{2}}{n}}$$ |  | $$s=\sqrt{\frac{\sum\_{}^{}\left(x\_{i}-\overbar{x}\right)^{2}}{n-1}}$$ |
| $\hat{p}=\frac{p}{n}$ $z=\frac{x-μ}{σ}$ | $$P=​\_{n}C\_{x}\left(p^{x}\right)\left(q^{n-x}\right)$$ |
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| **Confidence level** | **99%** | **98%** | **96%** | **95%** | **90%** | **80%** | **50%** |
| **Critical value (zc )** | **2.58** | **2.33** | **2.05** | **1.96** | **1.645** | **1.28** | **0.6745** |