

Observed Score

Population Mean
 $\mu = 100$

z -score

$z = \frac{X - \mu}{\sigma}$

Population Standard Deviation
 $\sigma = 15$

The diagram illustrates the formula for a z-score. It features three main components with arrows pointing to their respective parts in the formula: a purple arrow from 'z-score' to 'z', a blue arrow from 'Observed Score' to 'X', and a teal arrow from 'Population Mean' to 'μ'. The population mean is specified as μ = 100. A green arrow points from 'Population Standard Deviation' to 'σ', which is specified as σ = 15. The formula is presented as z equals the difference between X and μ, divided by σ.